UNITED STATES ENVIRONPMENTAL PROTECTION
REGION 10
1200 Sixth Aven
Seattle, WA 98101

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MAR 07 2003

Reply To
Attn Of: OW-131

Department of Ecology
WatP' fuallty Pronram

Megan White
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

MAR 11 2003

Dear Ms. White:

We appreciate the considerable work that the Department of Ecology (Ecology) has done over the past decade on its water quality standards revisions. It is an impressive effort by your staff to pull together this extensive package with all its supporting materials, as well as the well-run workshops and hearings around the State. This letter transmits our comments on these water quality standards revisions.

We have reviewed the draft revisions to the Washington Water Quality Standards dated December 19, 2002. We have also reviewed the technical documents and decision memos associated with the various changes that were part of the package that was public noticed on January 2, 2003. We did not review the Draft Environmental Impact Statement in depth, because the Environmental Protection Agency (EPA) does not have a role in the State SEPA process, however, we did refer to the draft EIS to understand the range of potential options that the State is considering while it seeks comment on these draft standards.

These revisions have been in process for many years, a reflection of the complexity and difficulty of the topics you are addressing, and the understandably diverse interests of the population you serve. From the EPA perspective, we see some very important reasons to proceed to bring this triennial review to completion - 1) adoption of antidegradation implementation procedures, a required element of water quality standards, necessary for consistent implementation of your antidegradation policy; 2) adoption of temperature criteria to improve protection for salmonids, particularly native char; and 3) adoption of improved bacterial indicators, in accordance with the Beach Act (Public Law 106-284) requirements, to better protect human health. We recognize the merits of other changes - the shift to use-based standards; the inclusion of policies for variances, site-specific criteria, and use attainability analyses; and the policy for addressing compliance of dams with water quality standards -- if the State is to have the flexibility to address site-specific refinements to standards.

In addition, we commend you for the tribal consultation process that you have undertaken with this package of proposed revisions. Northwest tribes have a large stake in salmon recovery and in protecting the health of aquatic resources, both on their Reservations and in usual and accustomed harvesting areas off-Reservation. We appreciate that the State has specifically responded in this draft to the request from tribes to acknowledge their interest in consulting on any proposed use changes in Washington's standards by inserting a specific

reference to consultation in WAC 173-201A-440(4). We encourage Ecology to continue the dialogue with tribes, on both these water quality standards, as well as other related water quality decisions in the future.

Once Ecology makes its final decisions on the standards and submits the revised rule to EPA, EPA will review and approve or disapprove the standards under our rules at 40 CFR Part 131. The revised standards will not be in effect under the Clean Water Act until EPA has taken action to approve those standards.

EPA must consult under Section 7 of the Endangered Species Act (ESA) with the National Oceanic and Atmospheric Administration (NOAA) Fisheries and the U.S. Fish and Wildlife Service (USFWS) on the action to approve state water quality standards. Section 7(a)(2) of the ESA requires that federal agencies, in consultation with the Services, insure that their actions are not likely to jeopardize the existence of federally listed species or result in adverse modification of designated critical habitat of such species. This ESA consultation will be particularly important because of the recent listings of multiple native salmon populations in the Northwest and the need to conserve and recover these listed stocks.

In addition the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires federal agencies to consult with NOAA Fisheries on any actions authorized, funded, or undertaken by an agency that may adversely affect Essential Fish Habitat (EFH) identified by Regional Fishery Management Councils. EPA will be combining the ESA and EFH consultations into a single process.

Our comments on the State's draft water quality standards revisions are found in Enclosure 1 to this letter. We have organized the comments by topical area in the standards. The nature of the comments generally falls into one of three categories: 1) provisions where we have a particular concern as to whether what has been proposed will protect beneficial uses, 2) provisions where more information will be needed for our Clean Water Act review and ESA consultation, and 3) minor editorial comments.

We have a concern with the language in some of the provisions. We realize that clarity and precision in regulations are difficult to attain, as EPA's own regulations often show. However, language that is open to interpretation is difficult to implement, evaluate, or comply with. We found several places where Ecology could be helpful by either revising the wording or by providing more information on interpretationand application of the standards. This concern arises particularly in the sections pertaining to the temperature criteria, dissolved oxygen criteria, antidegradation procedures, and the natural conditions provision. We reali7,e that it would be premature for Ecology to develop detailed implementation procedures for a proposed rule. Therefore, in Enclosure 1, we have identified where additional clarification within the standards would be most important to alleviate the potential for misapplication and misinterpretation of the standards, and which topics will need additional implementation guidance to support the Clean Water Act review and ESA consultation.

We would like to highlight six key issues of particular concern to EPA. Detailed comments on these and other issues are in the enclosure.

1) Ecology's proposed temperature criterion and use designations to protect char spawning and juvenile rearing may not be sufficiently protective.

2) Ecology's approach to protect salmon, steelhead, and trout spawning and rearing with a single criterion may not be sufficiently protective, particularly for early spawning stocks (spring chinook, chum) and late developing steelhead embryos. We recommend a separate temperature criterion to protect spawning.

3) Ecology should strengthen its provisions for the protection of waters colder than the criteria in order to provide more complete protection of its designated salmonid uses.

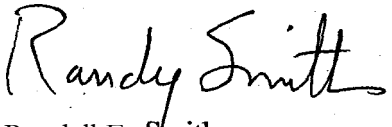
4) Dissolved oxygen criteria should be modified to ensure the protection of char and salmonid, steelhead, and trout spawning and rearing.

5) Antidegradation implementation procedures should be further clarified to ensure that the intent of the antidegradation policy is supported.

6) Both the natural conditions and short-term modification provisions should be refined so that they are applied and function appropriately.

We support Ecology in making needed revisions to the standards. It is a difficult job to write regulations that protect water quality adequately without being unnecessarily complex and burdensome. We hope that our comments may help in this difficult task. We are available to provide further input as needed to clarify our comments or suggest alternative language and approaches. Our principal expert on these standards is Marcia Lagerloef at 206-553-0176.

Sincerely,



Randall F. Smith
Director
Office of Water

Enclosures

cc: Susan Braley, Ecology
Mark Hicks, Ecology
Steve Landino, NOAA Fisheries
Ken Berg, USFWS
Billy Frank, NWIFC

Enclosure 1

EPA Comments on December 19, 2002 Draft Revisions to Washington Water Quality Standards

A. Temperature Criteria to Protect Aquatic Life

Overall, we think that Ecology's proposed changes to its temperature criteria are positive. In particular, we support Ecology's change from a class-based system to a use-based system, where specific salmonid uses are defined. Because salmonid distribution and health is directly linked to water temperatures, we support Ecology's approach to establish various sub-categories of salmonid use for which specific temperature criteria apply.

Other aspects of Ecology's proposal we support include: 1) the 16°C criteria to protect salmon, steelhead, and trout spawning and rearing (except for some situations where this criteria may not protect spawning as discussed below); 2) the 17.5°C criteria to protect salmon, steelhead, and trout rearing-only; 3) the 18°C criteria to protect redband trout; 4) the 20°C criteria to protect indigenous warm water species; 5) use of the maximum 7-day average of the daily maximum temperature metric; and 6) the statement that the temperatures are not to exceed the criteria at a probability frequency of more than once every ten years on average.

We, however, have serious concerns on three issues that raise the question as to whether the salmonid uses identified in Ecology's water quality standards (WQS) will be fully protected. Each of these issues are discussed below:

1) Char criteria and use designation.

We are concerned that a 13°C criterion may not fully protect bull trout spawning and rearing. As described in the bull trout peer review report that was part of EPA's Water Temperature Guidance Project, a 13°C criterion may place juvenile bull trout in a competitive disadvantage with other salmonids in a natural stream environment. Further, we have concerns that summer- early fall bull trout spawning may not be protected by the 13°C criterion. We also have concerns that bull trout spawning and rearing waters that currently have 7DADM maximum temperatures below 13°C could be warmed up to 13°C, which could further shrink the last remaining "optimal" bull trout habitat where bull trout clearly out-compete other salmonids. Lastly, although the methodology for designating char use is sound, we have concerns that there may be some isolated stream segments that should be added.

EPA recommendations: We recommend a 12°C criterion to minimize the risk to juvenile bull trout rearing from competition with other salmonids and to provide better protection for summer-early fall bull trout spawning. We also recommend a 9°C criterion to protect bull trout spawning. In order to protect bull trout spawning and to ensure existing high quality thermal habitat for bull trout rearing is maintained, we also recommend several changes to Ecology's WQS that are aimed at protecting waters that are colder than the temperature criteria. These recommendations are discussed below in issue #3. If these cold water protections are sufficient, it may not be

necessary to have a separate bull trout spawning criterion. We also recommend that Ecology's char use designations be consistent with the U.S. Fish and Wildlife's bull trout spawning and rearing critical habitat areas.

2) **Salmon, and trout spawning.**

We are concerned that the 16°C criterion may not fully protect salmon, steelhead, and trout spawning, especially those salmon stocks (spring chinook and summer chum) that spawn in the summer months and steelhead eggs that incubate into the summer months. We believe that 13°C temperatures or lower are needed to protect spawning and the final stages of steelhead egg-fry -development. Ecology makes the case that meeting the 16°C criterion during the period of maximum summer temperatures will in most cases protect spawning. We believe this is most likely true for fall spawning stocks (and early steelhead fry emergence), but we are not convinced the summer spawning/fry emergence will necessarily be protected.

EPA Recommendations: We recommend Ecology establish a specific salmon and trout spawning and steelhead embryo use with a criterion of 13°C 7DADM. We recognize Ecology's concern for minimizing the complexity of its WQS. Therefore, we think it would be acceptable to only designate this use for waters where there is concern that the 16°C criterion will not fully support this use. We recommend Ecology work with other State agencies, Tribes, and NOAA Fisheries to locate and designate these waters.

3) Protection of waters currently below the criteria.

As noted in the bull trout discussion above, we have concerns about protecting waters with temperatures currently below the proposed 13°C char criterion. We also have a general concern about further warming of rivers used by threatened and endangered salmonids. Human activity has already increased temperatures in many rivers in the State of Washington which adversely affects ESA-listed fish; further warming, especially waters of high quality, should be minimized.

Specifically, we have concerns about the allowable temperature increases noted in (1)(c)(ii) of WAC 173-201A-200. First, it is unclear whether these allowable temperature increases would circumvent the Tier II antidegration process. Second, the 2.8°C allowable increase for non-point sources would provide essentially no added protection for existing cold water since very few streams are likely to be more than 2.8°C colder than the criteria during the summer period. Third, the basis for the formula for point sources is unclear, and this allowable increase raises similar concerns regarding protection of existing cold water.

Additionally, we have concerns that the thermal refuge provision in (1)(d) of WAC 173-201A-330 is too limited in potential scope and so restrictive that it will not be used in practice.

EPA Recommendations: We recommend that (1)(c)(ii) of WAC 173-201A-200 be modified to clarify that these temperature increases reflect a maximum allowable increase and that any temperature increase above 0.3°C is subject to the Tier II antidegradation process. The Tier II

process may result in reducing the allowable temperature increase. Additionally, we recommend replacing both the point source formula and the 2.8°C non-point temperature increase allowance. We recommend that the maximum cumulative allowable temperature increase be 25% of the difference between the natural background temperature and the criterion, which would apply to both point and non-point sources. We think this: 1) provides better protection for summertime spawning (both bull trout and salmon/steelhead) and for high quality rearing habitat (both bull trout and salmon/steelhead); 2) is fair in that it treats point and non-point sources equally, and 3) is clear and intuitive as to the intent and purpose of this WAC provision.

We also recommend that (1)(d) of WAC 173-201A-330 be modified to include "macro" areas of thermal refugia (i.e. larger than areas of seeps and springs), which could include specific watersheds or stream reaches within a basin that are ecologically significant when assessing the basin as a whole. For example, summertime bull trout spawning areas in the upper portion of basins could be designated which would both protect this sensitive use and recognize the value that upstream cold water provides to downstream areas in the basin. We are concerned, however, that the non-degradation protection associated with Tier In might prevent waters from actually being designated in this way. So, we also recommend that a de minimus temperature impact (e.g. cumulative amount of 0.3°C) be allowed, which would in effect make this what is sometimes called a Tier II ½ level of protection.

In summary, these recommended modifications to WAC provisions are intended to ensure that waters that are colder than the criteria will protect the salmonid uses. As such, we would consider these in conjunction with the numeric criteria when determining whether or not Ecology's WQS meet CWA requirements.

4) Other comments related to temperature

We believe Ecology's demonstration that their criteria support steelhead smoltification that occurs in the spring is insufficient. We recommend that Ecology either show their summer maximum criteria support this sensitive use or adopt a 12°C criterion to protect steelhead smoltification.

We support Ecology's inclusion of specific criteria described in (1)(c)(vi) of WAC 173-201A-200 that apply to thermal plumes in order to protect salmonids. We believe 33°C for instantaneous lethality leaves little margin for error, so we recommend 32°C. Although a maximum temperature spike of 17.5°C would not likely adversely affect fish embryos, long term exposure at this temperature would. We recommend a 13°C 7DADM value to protect fish embryos. It is unclear how the migration and lethal temperatures noted in this section will be applied to thermal plumes. We recommend that thermal shock to salmonids be prevented by limiting the maximum cross-sectional area of the river that exceeds 25°C to less than 5-10 percent of the river. We recommend that adult migration blockage be prevented by limiting the maximum cross-sectional area of the river that exceeds 21 °C to less than 25% of the river or if upstream temperature exceeds 21'C, the thermal plume be limited such that 75% of the cross-sectional area of the river has no temperature increase.

We are not reviewing the Special Conditions for specific water bodies for temperature found in WAC 173-201A-600. These Special Conditions should be revisited over time as Ecology looks at the uses within particular basins. Where there are 20°C or 21°C temperature Special Conditions assigned, these waters should also be assigned a narrative provision to protect and restore other aspects of the natural thermal regime aside from maximum thermal temperatures, including cold water refugia and diurnal and seasonal temperature patterns.

B. Dissolved Oxygen (DO) Criteria

This was a particularly difficult section of the proposed WQS package to review adequately because of lack of clarity regarding implementation and because of the use of year-round criteria, which rest on the assumption of DO levels to be attained during critical life stage periods for fish. We therefore have many questions within our comments.

We note that in response to public comment Ecology has changed from the option proposed in June 2002, of a 120-day average as the metric for measuring dissolved oxygen, to the use of two metrics - a 90-day average and a one-day minimum. This approach is an improvement over the 120-day average, however we still have concerns with the metrics used, the numeric criteria selected, and the uncertainty regarding how these criteria will be implemented, particularly since the metrics are keyed to daily minimum DO levels. Our concerns relate particularly to protecting the fish early life stages of spawning, incubation, and rearing through fry emergence from the gravel. It will be difficult to complete our CWA review and develop the analysis for ESA consultation without further clarification of how the criteria are to be interpreted and applied, and how assumptions that were used in developing the particular metric statistic will be validated. We encourage Ecology to provide supplemental information on monitoring and assessment expectations. This would answer many of our questions raised during this review.

1) The selection of metrics and how they will be applied

a) 90-day averaging period

We are concerned that a 90-day averaging period is too long to protect the sensitive life stages of spawning, incubation, and fry emergence and that a 90-day averaging period can obscure substantial periods when protective criteria would not be met. One reference that we have used in our evaluation is EPA's Quality Criteria for Water (1986), which contains a discussion of EPA's nationally recommended criteria. EPA (1986) states that, "For embryonic, larval, and early life stages, the averaging period should not exceed 7 days. This short time is needed to adequately protect these often short duration, most sensitive life stages." While holding times for spawners, incubation times of eggs, and rearing in fresh water varies by salmonid species, we concur with the EPA criteria guidance that the averaging period for a metric for protection of the spawning and incubation life stages should be shorter than the Ecology's proposed 90 days.

EPA recommendation EPA recommends a shorter averaging period. However, if Ecology

intends to use a 90-day metric, Ecology needs to provide additional information on how the longer averaging period will protect the early life stages of salmonids (spawning through fry emergence), and how measurement of this metric will be accomplished to assure protection of these earliest life stages.

b) Application of the 90-DADMin and 1-day minimum metrics

A key issue that needs further clarification within the WQS is the relationship. between the two metrics that are proposed and what will apply under circumstances where there is a limited amount of data. If the criteria are applied separately and if the 1-day minimum can therefore be the operative criterion in some circumstances, we have concerns about the protectiveness of this criterion for designated uses.

Continuous DO measurements, or 90 days of individual grab measurements, are generally not feasible due to a lack of instrumentation and resources . We understand from further discussion with your staff that the 90-day average measurement is actually intended simply to bracket this period and can be calculated from as little as 3 monthly grab measurements. It is very hard to have confidence that ambient DO for 90 days can be characterized with only 3 measurements.

If there are two or fewer measurements, will only the 1-day minimum of 7.0 mg/1 be used as the operative criterion for assessing waterbody compliance? Provision 200(1)(d)(i) states that "The 90-DADMin and the one-day minimum criteria in the table above must both be applied to ensure protection of a healthy aquatic system." Does this mean that if there isn't sufficient data for a 90-DADMin that a single sample will not be used for compliance purposes?

Provision (d)(vi) acknowledges the importance of how data is averaged for the 90-day metric so that the results aren't "unreasonably biased". How will this be interpreted? How will the 90-day periods be framed to insure that critical life stages are protected, particularly when these life stages differ in timing between species and between watersheds?

EPA recommendation: Ecology needs to develop additional guidance to permittees, staff, and others working with gathering and analyzing DO data to address issues including how many samples are needed to address compliance with the criteria, when (within the day) to sample and where to sample for the daily minimum. Large diurnal differences in DO occur in most waterbodies due to plant photosynthesis and respiration. Lakes and reservoirs are frequently stratified, so guidance is needed on where the criteria apply and how to sample these waterbodies. EPA cannot assess the protectiveness of the criteria for the designated uses without additional information on implementation of the DO criteria.

2) **Use of a single set of criteria for year-round compliance**

The cover memo to Ecology's technical discussion paper on the DO criteria indicates that the year-round criteria are anticipated to achieve significantly higher levels of DO in periods other than the summer. This fundamental assumption, including the specific levels that need to

be achieved to protect the most sensitive life stages of spawning, incubation, and fry emergence, is not evident in the standards and therefore is not available for testing. We find this to be a serious flaw for the following reasons: 1) some salmonid species spawn in mid-to-late summer, 2) human perturbations in the landscape, including increased sediment and nutrient delivery to streams, and alteration of flows, can significantly alter the natural seasonal pattern of DO availability in the water column and the spawning gravels. On page 2 of the Ecology technical support document it states, "Of all the water quality parameters, dissolved oxygen is possibly the most ubiquitously affected by the actions of humans."

The histogram on page 88 of Ecology's technical support document represents a summary of what percentage of rivers would meet various spawning criteria based on year-round 90-day daily minimum criteria set at different levels. The histogram illustrates that 77% of streams that met the 90-day average daily minimum of 9.5 10.0 mg/1 met the spawning goal of 10.5 mg/1 as a 90-day average daily minimum during spawning. The spawning period in these streams was determined from the WDFW Salmonid Stock Inventory (SaSI) data which is now ten years old and can't be assumed to be accurate for all waterbodies because of variations in the data quality used to develop this data base as well as the professional judgements involved. From a CWA perspective, and considering ESA consultation, it is unlikely that 77% compliance will be adequately protective for this critical life stage of salmonids.

EPA recommendation: We recommend that Ecology include an explicit spawning/egg incubation/fry emergence DO criterion in the WQS and apply this criterion particularly to those streams where summer spawning occurs. (See the discussion on this same issue under Temperature criteria.)

3) **One-day minimum of 7.0 mg/l**

Not knowing how the two metrics are intended to be implemented, and absent another specified daily minimum criterion in the WQS, it appears feasible that at times the operative criterion could be the daily minimum of 7.0 mg/1 for salmonid spawning, egg incubation, and fry emergence (particularly for those stocks that commence spawning in mid-to-late summer.) If this is used as a stand-alone criterion, it appears to be a significant decrease in the dissolved oxygen criterion from the currently applicable criteria in Class AA and Class A fresh waters (9.5 mg/1 and 8.0 mg/l, respectively, as a minimum). We do not find biological justification in Ecology's technical support document to support this change and are concerned about its protectiveness for early life stages of fish, particularly those that commence spawning in the summer.

EPA's Quality Criteria for Water (1986) contains EPA's recommendations for DO levels to protect various life stages. Because many salmonid populations in Washington are ESA-listed, we referred to Table 2 in that document, which presents criteria referenced to the risk of production impairment. EPA (1986) states, "If slight production impairment or a small but undefinable risk of moderate impairment is unacceptable, then one should use the "no production impairment" values given in the document as mean values and the "slight production impairment" values as minima. The slight production impairment value for embryo and larval stages of salmonids in Table 2 is 9 mg/1. The EPA criteria for spawning are based in part on

achieving required intergravel dissolved oxygen concentrations for eggs in redds, which are presumed to be as much as 3 mg/1 below the water column criterion. Thus, a criterion of 9 mg/l as a daily minimum measured in the water column is intended to ensure that the intergravel dissolved oxygen is at least 6 mg/l as a minimum.

Ecology's technical document reviewed more recent technical literature and concluded (page 23) that minimum intergravel DO to protect spawning and incubation should be at least 8.0 - 8.5 mg/l if a high degree of protection is intended. Using EPA's recommendation that a 3 mg/l difference should be factored into the water column criterion in reference to the intergravel criterion, would result in a water column criterion of 11.0 - 11.5 mg/l. Ecology's technical document cites a range from literature of typically 1 - 3 mg/l for the difference between the water column and intergravel DO concentrations. We are aware that the science of measuring intergravel DO is inexact, and that it appears that intergravel DO is spatially heterogeneous. Therefore, the assumption of a 3 mg/l difference between water column and intergravel DO is potentially a conservative assumption, but appropriate to support the designated use, especially when it includes listed species.

Ecology's technical support document provides documentation of both the factors that can compound the effects of marginal DO (such as temperature) and the potential to impact survival because of reduced fitness resulting from decreased size at hatching and delay in emergence from the gravels - effects associated with less-than-optimal DO. It was evident from many studies that if temperatures are not ideal for spawning and incubation, the effects of lower DO are exacerbated. Many of the laboratory tests were conducted such that the alevin did not need to push up through gravel substrate (i.e. emerge) to survive. This action in nature will be affected if the fitness of the fish has been affected by lower than optimal DO in the redd. "Thus higher oxygen levels may be needed to fully protect emergence than to just fully support hatching alone." (p 11, Ecology DO technical support document). The studies reviewed also demonstrated that any decrease in mean oxygen concentration during incubation may directly reduce the size of hatched salmonids. (p 14, technical support document). A reduction in size of hatched fish would affect both the fitness for emerging from the gravels as well as the foraging ability and susceptibility to predation once they have emerged. Ecology's review of field studies of emergence from spawning gravels found that 8.0 mg/l was associated with superior health and survival and that significant reductions in survival were associated with average concentrations below 6.0 - 7.0 mg/l.

Another factor that will affect the protectiveness of the criteria is the flow rate in the waterbody during the time of spawning, which affects the aeration rate of the gravels. Where streams have multiple out-of-stream water appropriations, combined with drought conditions, flows could be seriously reduced and result in a lower rate of flow and aeration to the gravels. This factor also warrants using a conservative assumption in the estimate of the difference between the water column DO and the intergravel DO.

We understand from discussion with Ecology staff that from their analysis of existing stream data from 84 sites, the minimum DO was on average 0.94 mg/l lower than the 90-day average DO. This is the basis for Ecology concluding in staff discussions with EPA that

compliance with the 90-day metric will more likely provide compliance with a daily.minimum of 8.5 mg/1, rather than 7.0 mg/i. Worded differently, it is likely to be the 90-day metric that is the driver from a compliance standpoint. The analysis done by Ecology to make this assumption is based on measurements that are not representative of the metric specified in the standards, so it is difficult to tell whether this is an accurate conclusion. The criterion in the proposed WQS is a 90-DADMin, whereas the measurement used in the assessment of existing data is a 90-day average. Discussion at the front of the analysis acknowledges that the current monitoring program is both intermittent and not likely to sample in the early part of the morning when DO levels are expected to be lowest. Therefore, this analysis did not look at critical conditions reflective of the metrics as stated in the draft criteria.

EPA recommendation: As discussed in other recommendations above, Ecology needs to clarify the operation of the two-metric system and how the levels set will protect the early life stages of salmonids, particularly those stocks that commence spawning in mid-to-late summer.

4) Other factors that affect available DO as well as impacts of DO levels

We are concerned that DO levels that may be marginal for protection are further exacerbated by other stresses that may already exist in aquatic environments affected by human activities. On page 23 of Ecology's technical support document there is a consideration of various policy issues, including a discussion of temperature-induced risks to salmonids that may interact with the DO levels. It's stated, "When temperatures are above favorable levels for incubation, any reduction in oxygen can cause a notable increase in detrimental effects to embryonic growth and survival." *As* discussed in our review of the temperature criteria there is evidence that the temperature criteria selected by Ecology are at the edge of what are considered to be fully supporting levels, therefore this statement regarding DO effects would support an even more conservative approach in setting DO criteria. Temperature and DO are also related in that temperature affects the amount of DO in the water, therefore an approach to the DO criteria might be to set both a numeric limit and 90% saturation, and apply whichever is greater in that particular situation. *As* described earlier in our comments, human actions on the landscape increase sediment delivery to streams, and reduce flows or alter timing of flows, all of which can have significant effects on the DO in the gravels, regardless of the water column DO.

EPA recommendation: Ecology's final selection of DO criteria to protect salmonid spawning, egg incubation, and fry emergence needs to specifically address these issues and explain how the DO levels selected are protective.

5) **De minimus provision**

Provision (d)(ii) allows that "When a waterbody's DO is lower than the criteria in the table 200(1)(d) [or within 0.2 mg/L of the criteria] and that condition is due to natural conditions or human structural changes that cannot be effectively remedied. (as determined consistent with the federal regulations at 40 CFR 131.10), then human actions considered cumulatively may not cause the 90-DADMin to decrease more than 0.2 mg/L."

This provision raises one concern and a few questions. Our concern is that this language treats human structural changes that cannot be effectively remedied like a natural condition. Human structural changes that cannot be effectively remedied are not a natural condition. As noted by the regulation citation, applying this *de minimus* provision would first require a Use Attainability Analysis (UAA) to remove a designated use from a waterbody or create a subcategory of a use with less stringent .criteria. Ecology will need to do a UAA and submit it to EPA for review and approval before resetting the criteria for reasons other than natural conditions. Because a UAA determines an attainable condition and, as necessary, new uses and criteria, we do not see the biological basis for further degrading the condition with an allowance of 0.2 mg/l.

The provision regarding natural conditions would work as an "automatic" natural condition provision without the language related to human structural changes.

EPA recommendation: Ecology needs to provide further information on how it envisions this provision operating in order for EPA to be able to complete its review.

C. Bacterial Criteria

Ecology is proposing shifting from its current fecal coliform criteria to E.coli in fresh water and enterococci in marine water, consistent with the most recent EPA criterion guidance for protection of primary contact recreation. The October 2000 Beaches Environmental and Coastal Health Act (BEACH Act) made this a requirement by adding section 303(i) to the CWA, requiring coastal states to adopt criteria for coastal recreation waters "as protective of human health as" EPA's published criteria for pathogens and pathogen indicators by April 2004. Ecology's proposed criteria meet the Beach Act requirement. Two areas merit further discussion in our comments below.

We note that Ecology is adopting E. coli criteria for freshwater at a level more stringent than EPA's national criteria recommendations. As we understand it, Ecology's decision is based on maintaining the level of protectiveness for primary contact recreation (i.e. risk of illnesses due to pathogens in the water) under the current fecal coliform criterion. Ecology's E. coli criterion is based on a close correlation found between fecal coliform and E. coli in fresh water in Washington. This is an appropriate and well-supported risk management decision on the State's part, and therefore supportable under the CWA.

1) Use of fecal coliform as an indicator of compliance with enterococci criteria for protection of primary contact uses in marine waters

Provision WAC 173-201A-210 (2)(b)(i) states that "Fecal coliform levels for shellfish growing areas will be viewed by Ecology as also being fully protective of primary and secondary contact uses." We appreciate that Ecology has concerns both about the need to test for three bacterial indicators (fecal coliform, E. coli, and enterococci) and with the potential public communications issue if the water passes the shellfish sanitation criterion and fails the primary contact criterion. National and local studies have indicated that there is no basis for assuming a

relationship between the concentration of fecal coliform in a water body and the concentration of enterococci (for example, Vasconcelos, 1985). In Vasconcelos (1985) water near local marine beaches at Golden Gardens and Alki Point was sampled. At Alki Beach there were seven separate sampling periods. Fecal coliform always met the marine criterion of 14/100 ml. On two occasions the enterococci criteria exceeded the criterion of 35/100 ml, despite the fecal coliform compliance (3 fecal coliform vs. 63 enterococci, and 6 fecal coliform vs 51 enterococci). At Golden Gardens the fecal coliform criteria were exceeded in three out of six samples. The enterococci criteria were exceeded on only one (the lowest) of these three coliform exceedance occasions (43 enterococci vs 17 fecal colifoim/100 ml). Data provided to EPA by KingCounty Wastewater Treatment Division (email from Betsy Cooper) of marine water sampling related to spill events at the West Point and Carkeek sewage treatment facilities, shows that in these instances the fecal coliform criterion for shellfish consumption was exceeded without the primary contact enterococci criterion being exceeded. In no cases was the enterococci criterion exceeded without the fecal coliform criterion being exceeded.

These data comparisons are very limited, but were all that was immediately available for assessing Ecology's proposal. The Golden Gardens and two King County studies appear to support the protectiveness of your proposed approach of using the fecal coliform monitoring for shellfish sanitation purposes as an indicator of protective levels of enterococci. However, there does not appear to be a predictable relationship between the two parameters, and the Alki Beach study brings into question whether even the general assumption that the fecal coliform limits will be exceeded first is valid.

Fecal coliform are known to die off quickly in marine waters, whereas enterococci may survive for some time. This tendency of enterococci is precisely why this indicator is viewed by EPA (EPA, 1986) as a more protective and reliable indicator for human health protection in marine water, compared with fecal conform. The persistence of enterococci in marine water is likely to better replicate the behavior of other human pathogens, including viral pathogens.

EPA recommendations: If Ecology wishes to continue monitoring for fecal coliform only as a surrogate for enterococci in marine waters, the ability of the one indicator to safely represent the other needs to be further documented. As noted above, we are not currently aware that there is a reliable relationship between fecal coliform and enterococci or E. coli in marine water. We recognize that the State may need a period of transition to develop experience with the new indicators and the analytical methodologies, therefore it is appropriate and recommended that states include measurement of multiple indicators for a limited period of time (May 2002 Draft Implementation Guidance for Ambient Water Quality Criteria for Bacteria).

2) **Waters in lakes and Class** AA **waters**

In fresh water Ecology is proposing to set the new E. coli criteria at 100/100 ml based on the close correspondence found in WA fresh waters between the E. coli and fecal coliform numbers and the desire to not lower the level of protection currently afforded these waters for primary contact uses. How will Ecology handle waters that are currently set at a fecal coliform criterion of 50/100 ml (lakes and Class AA waters)?

EPA recommendation: Ecology needs to clarify that for waters in lakes and Class AA meeting the current bacterial criteria, degradation of water quality to the levels in the proposed criteria would require a Tier II antidegradation analysis.

D. Antidegradation

Antidegradation is a required element of state and tribal WQS. We know from experience that implementation of the antidegradation policy is difficult and seldom applied consistently without implementation procedures being available to guide both department staff and the public. Therefore, we are very pleased that Ecology has developed draft antidegradation implementation procedures. In the arena of temperature, antidegradation is a necessary tool for protecting waters colder than the criteria where they currently exist. This can be particularly important in upper watersheds, where waters have traditionally supported species and life stages that require the coldest temperatures. Cold water protection also provides assimilative capacity that is critical when future development or other activities that contribute to increases in temperature are planned downstream.

We have particular concerns with the proposed antidegradation implementation procedures in four areas: 1) the need to clarify how Ecology and the public will determine which waters are Tier II; 2) the potential for the "measurable change" approach to result in untracked cumulative effects that systematically degrade Tier II waters; 3) the general permit approach and its consistency with antidegradation policy requirements; and 4) the limited options for assigning an ecologically significant water a Tier III status. We have drawn from the experience or other states to suggest some potential approaches to these issues. We recognize that implementation of the antidegradation policy is challenging from an administrative standpoint and therefore recommend that Ecology's approaches be reviewed and potentially refined at some point within the next few years, after more experience is gained in implementation.

1) Waters receiving a Tier II analysis

Tier II waters - those waters with higher quality than the criteria assigned - constitute an important public resource, allowing assimilative capacity for future growth and a cushion in water quality that is likely beneficial to both humans and aquatic species. The Tier II analysis in EPA's regulations is intended to make these decisions public decisions about use of a finite resource that is available to all.

a) Identifying Tier II waters

Ecology's approach to antidegradation is a parameter by parameter approach, rather than a designational approach. As we understand it, this approach does not include identification in advance of what waters are considered to be Tier II waters for which parameters. One issue that needs to be addressed in implementation guidance is how Tier II waters will be determined. It is quite possible that many permittees are not yet discharging at their permitted levels. Measurement of ambient water quality therefore would not be a true reflection of what water quality might be if all facilities were operating at their allowable discharge limits.

EPA recommendation: We recommend that the calculation of existing permitted loads be taken into account before it is assumed that there is remaining assimilative capacity for further allowable degradation under Tier II.

b) Measurable change

Ecology includes under WAC 173-201A-320 (2) an approach that defines "measurable change" in terms of individual criteria. The intent is that only activities that result in a predicted "measurable change" outside the mixing zone will be considered degradation that is significant enough to warrant a Tier II analysis. The "measurable change approach has two potential bases: 1) the amount that can be reliably measured with current instrumentation, and 2) an allowance for *de minimus* degradation.

EPA recommendation: We recommend that guidance clarify that the "measurable change" approach is not intended to result in double counting of an allowance for measurement error plus an allowance for degradation.

While using some sort of threshold is reasonable, we are concerned that there is the potential that application of the mixing zone policy, coupled with this provision, could result in no activities exceeding the "measurable change threshold and therefore receiving a Tier II analysis. We are assuming that one safeguard in this regard is the explicit reference'to the section of the mixing zone policy that sets specific size limitations WAC 173-201A-400(7).

EPA recommendation: We recommend that Ecology clarify in this section that Tier II analysis will be needed if WAC 173-201 (a) 400 (12) is used to develop a mixing zone that exceeds the numeric size criteria established in WAC 173-201A-400(7). This would limit the possibility of the "measurable change" provision becoming an exit ramp from Tier R analysis for all projects simply by manipulation of the mixing zone size.

c) Cumulative effects from actions not receiving Tier II analysis

In addition, a concern with any approach like the "measurable change" approach is that these seemingly *de minimus* changes can have a cumulative effect from multiple actions over time. In order to make sure that cumulative effects are managed, we encourage Ecology to develop a mechanism to either establish a baseline in time for water quality or to track degradation over time when it results from actions that never receive a Tier II analysis.

The State of Colorado discovered after several years of implementing their antidegradation policy, that no actions were receiving a Tier II analysis. One way that Colorado addressed this was to change their regulations in September 2000 to set a baseline date and limit cumulative degradation from that date to *15%* of the remaining assimilative capacity.

Similarly, the draft rule for the Great Lakes Water Quality Guidance (58 FR 20802) proposed a definition of de minimus degradation for non-BCCs (Bioaccumlative Chemicals of Concern) such that the lowering of water quality by a pollutant would be considered de minimus

if it satisfied the following criteria:

The lowering of water quality uses less than 10 percent of the total assimilative capacity; and

at least 10 percent of the total assimilative capacity remains unused after the lowering of water quality.

The State of New Hampshire has a similar provision, however they consider a lowering of > 20% of the remaining assimilative capacity to be a significant lowering of water quality requiring the Tier II process.

These examples provide options for limiting how much of the assimilative capacity can be used without going through a Tier II analysis and also for limiting cumulative effects. These approaches do require that baseline water quality be known and some record-keeping system to track degradation from the baseline in water quality and assimilative capacity.

Our concern with Ecology's "measurable change approach is that it is conceivable that permit limits could be calculated to fit within the measurable change thresholds without ever assessing whether a water is a Tier II water. This would make it virtually impossible for the public to track what is happening overall to water' quality in Tier II waters.

EPA recommendations: We recommend that Ecology include a provision in the antidegradation procedures to address cumulative degradation in Tier II waters in order to assure the public that the "measurable change" approach won't ultimately lead to loss of all Tier II status waters without public input and review. We would be happy to assist Ecology in locating other state examples of this type of approach that have proven reasonable to implement.

2) **Factors considered in antidegradation Tier II analysis**

The proposed rules state at WAC 173-201A-320 (4) (a) that "A statement of the benefits and **costs** of the social, economic, and **environmental effects** associated with the action" (emphasis added) will be provided by the applicant for the Tier II analysis. However, the examples given of the information that will assist this analysis do not speak to the environmental and social cost of degrading water quality (or, conversely the benefits of maintaining water quality.)

Previous review drafts of Ecology's standards, including the December 2001 version, contained a substantive list of these counterbalancing benefits of maintaining the water quality, including assisting in the recovery of threatened and endangered species, providing assimilative capacity for future industry and development, and promoting fishing, recreation, and tourism industries. These examples are now missing from the implementation procedures and therefore likely to be overlooked. (Our discussion above under temperature criteria provides further support for the need to consciously weigh factors, such as protection of salmonids, in this decision-making process.) We are aware also (August 7, 2002 letter from James Anderson, Executive Director, Northwest Indian Fisheries Commission, to Tom Fitzsimmons, Director, Ecology) that tribes have raised Tier II degradation as a significant issue because of the cultural

and economic cost to them of further degradation of the aquatic systems supporting their treaty resources. When the benefits of maintaining water quality in a particular water body are not part of the consideration, that may undermine the overall intent of the State's antidegradation policy.

EPA recommendation: We recommend that Ecology reinsert into Section (4)(a) of the Tier II procedures the examples of benefits of maintaining water quality that were listed in the December 2001 draft WQS under (5)(c) (ii) within the antidegradation section.

3) Public process associated with determinations for Tier II waters

Ecology's draft implementation procedures contain no discussion to indicate whether or how determinations to allow degradation of Tier II waters will be made available to the public for their input and comment.

EPA recommendation: We recommend that Ecology use existing public notice opportunities and make preliminary Tier II determinations (and their basis) available for public comment at the time of permit public notice or notice of action to issue a Section 401 water quality certification. Determinations that degradation is not significant and does not require a Tier II analysis should also be included in a public notice for the action.

4) General permits and control programs

We appreciate. the difficulty of tackling this particular issue and are pleased that Ecology is explicitly addressing general permits. If all actions in Tier II waters were to require a full Tier II analysis, there would no longer be an administratively streamlined general permit process. Thus, the challenge is to balance administrative efficiency with needed protection for high, quality waters. Ecology staff noted at the Seattle public hearing that "many thousands" of activities fall under general permits, therefore this is an area deserving of attention when considering the effectiveness of an antidegradation policy and implementation procedures.

a) Requirements applicable to individual activities authorized under a general permit or water pollution control program

The proposed language in WAC 173-201A-320 (6) has dropped some of the significant specifics found in the December 2001 draft. Notably, the language has been dropped that stated that general permits and control programs must be designed so that individual actions would not be expected to: "(i) Cause violations of water quality standards or harm existing uses", "(ii) Result in further lowering of water quality for parameters reported on the most recent EPA approved Section 303(d) list", or "(iii) Lower water quality in waters designated by name in this chapter as Water Quality Preservation Areas." Dropping the above-quoted language, which specifically states important expectations of individual actions under general permits and control programs, while at the same time indicating that these individual actions will not require a Tier II analysis, appears to unnecessarily remove options Ecology may wish to retain to correct activities that are found to cause degradation that is unacceptable.

EPA recommendation: We recommend the December 2001 language, quoted above, be reinserted into this section.

b) Tier II review at the time of public notice of the general permit

Ecology has followed EPA's suggestion that the Tier II analysis for these general permits and programs be conducted primarily at the time of permit issuance. It is unclear what process or analysis will take place when all that is stated in the WQS at WAC 173-201A-320 (6)(b) is that "A statement to that effect will be included in the information provided during the public process." How will this process allow individuals to identify waters where further degradation would not be in the "overriding" public interest?? We recognize that a complete site-specific analysis is not feasible at the time of general permit issuance.

Provision (6)(b) states that "The economic and environmental considerations made, when developing the general permit or program, satisfy the requirements of subsection (4)(a) of this section." This statement reflects an assumption that the economic and environmental considerations pass Tier II. It isn't clear how or whether that would be the case or whether that determination would be publicly available.

EPA recommendation: We recommend that Ecology clarify what kind of information will be made available to the public at the time of public notice of a draft general permit. If there are circumstances when Ecology provides public notice of individual activities under a general permit or control program that is another potential opportunity to request public input relative to degradation in Tier II waters, if the activity will take place in a Tier II water.

We are not clear on why only section (4)(a) is referred to, when the Tier II analysis also includes (4)(b). Section (4)(b) pertains to alternatives to the lowering of water quality to assure that the least degrading alternative that can be "practically implemented" is used. Without this reference, only AKART will be applied, regardless of whether the activity is in a Tier II waterbody.

EPA recommendation: We recommend that the reference to section (4)(b) of the antidegradation procedures be included under (6)(b).

5) **Criteria for qualifying for Tier III (non-degradation) status**

Ecology's criteria for Tier III designation limit the potential to protect ecologically important waters. EPA's regulations suggest that one criterion for designation as a Tier III water is exceptional ecological significance. Ecology's provisions at WAC 173-201A-330 (1) include (a) " water in a relatively pristine condition ... or possesses exceptional water quality, and also occurs in federal and state parks, monuments, preserves, wildlife refuges, wilderness areas, marine sanctuaries, estuarine research reserves, or wild and scenic rivers", (b)"unique aquatic habitat types" that are "regionally rare examples" and (d) waters that are areas of "thermal refuge." This appears to limit unnecessarily the range of ecologically significant waters that might be considered for non-degradation. Consider, for example, a stream that connects two

related population segments of a particular ESA-listed salmonid stock. Maintaining the genetic and spatial diversity of that population, by maintaining the integrity of the connection may be critical to its survival in an environment that receives multiple stresses. The connecting waters may not be pristine or unique habitat types, but for the population dynamics at hand they may be a vital link, where further degradation would affect the ability of the water to support the fish use of that connecting link. Such cases may not be made readily, but they shouldn't be precluded by designation criteria that are too limited.

We understand that Ecology's limited set of designation criteria was used in previous drafts because this section of the standards made designation essentially automatic if a waterbody met the designation criteria. This is no longer the case.

EPA recommendation: We recommend that you insert a criterion for designation of waters of exceptional ecplogical significance. We would be happy to work with you in developing appropriate language. Because of the significant difference in allowable activities between Tier 11 and Tier IR waters, many states have adopted a Tier II 'h provision that allows some very limited degradation, but offers much of the Tier III protection. We would support the State adopting in addition to the Tier III category, a Tier II'/2 as mentioned in the Draft EIS.

6) Assessment of how these provisions function

We recommend that Ecology commit to a review of its antidegradation implementation procedures after a set initial period, such as three years. The proposed revisions to the State's WQS are intended to ensure that the antidegradation'policy that has been in place for some time is implemented. There is no national antidegradation implementation guidance for this process and little experience regionally to draw from, yet there are public expectations that the policy is intended to create benefits of enhanced environmental protection for current uses as well as future needs. A review within a few years could be an opportunity to re-check both the expectations and the performance of the implementation program you have designed.

E. Designated Uses

1) Salmonid and other fish migration

The salmonid and other fish migration use is no longer listed specifically under aquatic life uses being protected (provision WAC 173-201A-200) and use designations for waters of the state (provision WAC 173-201A-600)

EPA recommendation: Ecology needs to add this use to the two provisions referred to above.

2) **Protection of nonspecified aquatic life**

We support the new language in this draft of the WQS that other nonspecified fish and nonfish species must also be protected within the use categories that are primarily named after various fish species.

F. Water quality offsets

Provision WAC 173-201A-450 (2)(b) states, "The improvements in water quality associated with creating water quality offsets for any proposed new or expanded actions must be demonstrated to have occurred in advance of the proposed action." Ecology's introduction of this provision shows considerable foresight for addressing water management on a watershed basis. This language as well as the accompanying provisions in this section of the water quality standards do not make clear the importance of designing the offset both spatially and temporally in the context of the watershed where it is occurring.

EPA recommendations: We recommend that you insert language into the provision to clarify that the offset needs not only to precede the discharge that it is offsetting, but also remain in place so that the reductions continue to occur at the same time as the discharge they are meant to offset. In addition, the offset and discharge need to be related spatially in such a way that the waterbody condition and uses aren't being degraded in the waterbody as a whole between where the discharge occurs and where the offset takes place, nor create any adverse localized impacts..

G. Criteria for total dissolved gas (TDG)

1) Implementation

There appear to be some ambiguities in the language in this section. Clarification and some additional specifics are needed to understand how this criterion is applied. WAC 173-201A-200(1)(f) contains some areas of confusion. Table 200(1)(f) lists the criterion as "Total dissolved gas shall not exceed 110 percent of saturation at any point of sample collection." The narrative accompanying that table at (1)(f)(ii) states that "TDG is measured as the average of the twelve highest consecutive hourly readings in any one day, relative to atmospheric pressure." Are these consistent with each other? Is compliance with the criterion on a per sample basis or only based on an average of the twelve highest hourly readings? What if there aren't 12 readings? If the metric is now an average of the twelve highest hourly readings, what is the likely range of data points, based on existing data? How high might an individual reading be and still have the average comply with the criterion for a twelve-hour average?

The current WQS include a specific compliance point below Bonneville dam (Camas-Washougal), in the absence of a forebay downstream. No such indiction of where compliance will be measured below Bonneville is included in the proposed revisions. Where will compliance be measured below Bonneville?

If the monitoring in the gas abatement plan (1)(f)(iii) indicates harm to the fish population that exceeds that caused by passage through the turbines, what actions can Ecology take?

EPA recommendation: Ecology needs to provide additional information/clarification regarding the application of this criterion.

2) Basis for allowing higher TDG criteria

The biological basis for allowing higher TDG numbers than EPA's criteria recommendations is not discussed.

EPA recommendation: Ecology needs to include a discussion of the basis for the alternative TDG numbers in its submission to assist EPA in both the CWA review and in conducting the ESA consultation.

H. Criteria for Ammonia

We have reviewed Ecology's.draftdocument entitled, "Review of USEPA's 1999 Ammonia Criteria for Freshwaters" (December 2002). We appreciate the time and effort Ecology staff have put into analyzing some of the more salient issues regarding ammonia toxicity. The draft document points out some of the complexities inherent in determining and ensuring an appropriate/adequate/acceptable level of protection for aquatic life species, more specifically, for salmonid species. The draft document presents several insightful alternative approaches for revising the State's acute and chronic ammonia criteria for freshwaters for the protection of salmonids and nonsalmonid species.

We support Ecology in recommending alternative 1.. EPA believes this is a reasonable approach to ensure protection of salmonids from adverse effects from ammonia, especially given: (1) the range and status of salmonids in Washington, (2) salmonids are a commercially and recreationally important species in Washington, as well as certain salmonid stocks being listed as threatened or endangered under the ESA, and (3) the State's concern regarding an acceptable level of risk for these species. Further information is included in the enclosed review that EPA Region 10 conducted, with assistance from EPA Headquarters, to assess both the Washington and Idaho ammonia proposals in September 2001 with respect to the 1999 EPA criteria guidance for ammonia. (Enclosure 2)

I. Natural and Irreversible Human Conditions

We are concerned that the two situations, combined under provision WAC 173-201A-260(2) [NOTE: there is a typo in the numbering in the draft WQS -it is listed as "1" but should be "2"] are not appropriate for combining because they need to be handled differently. The provision combines the existing provision relating to natural conditions with a new option to allow criteria to be reset due to human structural changes that cannot be effectively remedied, plus some allowed further degradation in both of these circumstances.

1) Natural conditions

The significant change in the natural condition language from the current WQS is the change from "the natural conditions shall constitute the water quality criteria" (an automatic provision) to "may become the alternative criteria target for a waterbody." The new language takes away the automatic character of the provision. A change to a natural condition will therefore require a site specific criterion be developed. It is unclear if the phrase "alternative

criteria target" is intended to result in something other than a new criterion?

EPA recommendation: Ecology needs to clarify whether it intends an automatic provision for natural conditions or a site-specific criteria development process, which would include submission to EPA in each instance it is used. In either case, EPA recommends that: 1) decisions on natural conditions be water body-specific, well-documented, and supported with data and information; and 2) that there be a public participation process when invoking the natural condition provision to change a criterion. The public participation could easily take place within the context of permit public notice, public notice of a draft 303(d) list, or public notice of a draft TMDL. The language in the notice would need to specifically call attention to this determination and the technical basis for it. We believe this will increase both the credibility and the acceptance of changes in criteria that are proposed as natural conditions. Even if changes in the applicable criteria occur based on an "automatic" natural conditions provision in the standards, these procedures should still be followed. If the natural conditions provision is automatic there is a clear need for a mechanism for permit writers and the affected public to track these changes in the effective criteria in the State's standards.

2) **Human structural changes**

The provision dealing with human structural changes that cannot be effectively remedied cites language from and references the EPA standards regulations (40 CFR Section 131.10). This section of EPA regulations addresses use designations, and more specifically the language captured in the State's draft is from the section on conducting a Use Attainability Analysis (UAA) to demonstrate that the designated use is not attainable. Therefore this provision applies to both use changes and changes in criteria.

EPA recommendation: Ecology needs to clarify what is envisioned with this provision. It appears that first a UAA would need to be completed in accordance with new section WAC 173-201A-440. After EPA review and approval and ESA consultation this UAA could be used to change both the uses and the applicable criteria.

J. Short-term Modifications

Ecology has made some significant changes to this provision that may warrant dividing the activities into categories, some of which don't easily fit the concept of a short-term modification.

1) Time limits on activities that are "short-term" modifications

Ecology's current WQS contain in the short-term modifications provision the language, "Such activities must be conditioned, timed, and restricted (i.e. hours or days rather than weeks or months) in a manner that will minimize water quality degradation to existing and characteristic uses." The proposed revision drops the parenthetical statement which illustrates the concept of "short-term." A provision entitled short-term modifications is not specifically listed under optional policies that states might adopt in 40 CFR 131.13. However, these

modifications fit conceptually with the concept that water quality can be maintained and protected with some allowance for short-term changes in water quality.

EPA recommendation: EPA recommends that the time period examples be reinserted into the short-term modification language.

2) **Integrated pest or noxious weed programs**

We have concerns that as worded now this aspect of the short-term modification provision is not limited in time. While these programs may be authorized for multiple years, the duration of the activity itself should be limited as noted above.

EPA recommendation: The language under WAC 173-201A 410 (2) that the "standards may be modified for the duration of the plan or for five years" should be removed if this is to be a short-term modification.

3) Watershed restoration activities

These activities, such as dam removal may well last longer than hours or days, and can't be justified as a short-term modification.

EPA recommendation: Watershed restoration activities could potentially be addressed under the variance provisions, relying on rationale #3 under 40 CFR 131.10 (g). We would be happy to explore this with you further.

K. Special Conditions Applicable to Certain Waters

Ecology has translated intact to its new specific use designation table for fresh water (WAC 173-201A 620) the Special Conditions that are included in the current WQS. These Special Conditions currently use expressions of the temperature and DO criteria that are expressed in the metrics of absolute minimum DO and absolute maximum temperature, as opposed to the seven-day average of the daily maximum temperature and the 90-day average of the daily minimum DO. In addition, in some cases the Special Conditions are still expressed as fecal coliform. The information to understand the applicable metric is not apparent in Table 620 and needs to be clarified.

EPA recommendation: Ecology needs to clarify the applicable metrics for these Special Conditions. We assume Ecology will want to harmonize these criteria with what is adopted in this triennial review. This could be done as Ecology takes up the questions of use designation that it has tabled until completion of this triennial review.

L. Variances, Site-specific Criteria, and Use Attainability Analyses

Each of these tools for refining the applicable uses or criteria in a water body is recognized by EPA and it is appropriate that Ecology is incorporating allowance for use of these

tools into the Washington water. quality standards. Use of any of these tools to change an applicable criterion or use for a water body requires EPA review and approval and ESA consultation.

EPA recommendation: Ecology needs to make sure these expectations are clear to the users of these standards.

M. Editorial Suggestions

Marine water designated uses and criteria

On page 22, the brief introduction under the title to WAC 173-201A-210 refers to "fresh surface waters" rather than the marine waters in the title - this should be changed.

Table 210(1)(g) on page 25 might be titled more appropriately "Shellfish Harvesting Bacteria Criteria in Marine Waters", although we understand the harvesting function is contained within the overall aquatic life use. The bacterial criteria are intended to protect human health rather than aquatic life, so alternative labeling might make this more clear.

On page 26, the "Water contact bacteria criteria" should be labeled provision "b" rather than "a".

Enclosure 2

September 2001

Issues and Recommendations from EPA Region 10 regarding

EPA's 1999 Update of Ambient Water Quality Criteria for Ammonia for the Protection of Freshwater Aquatic Life

Background

EPA Region 10 reviewed both the Washington Department of Ecology's and the Idaho Department of Environmental Quality's proposed revisions to ammonia criteria. Although these two agencies each reviewed EPA's most recent recommended freshwater ammonia criteria, each has chosen a somewhat different approach. in revising the freshwater ammonia criteria.

EPA's 1999 Update of Ambient Water Quality Criteria for Ammonia (1999 Update) contains the Agency's most recent freshwater aquatic life criteria recommendations for ammonia. Under the Clean Water Act, EPA is required to publish and periodically update its ambient water quality criteria. Since EPA's last publication of ammonia criteria (1984), new data has become available on the toxicity of ammonia to aquatic life. The 1999 Update therefore reflects the most current science and provides protection to aquatic life.

Rather than single numbers, both the 1984 criteria and 1999 updates use equations to describe the criteria for a given temperature and pH. EPA's 1999 Update has two recommended acute criteria, with or without salmonids present. It also has two recommended chronic criteria, with or without early-life stage fishes present.

What were Washington Department of Ecology's primary concerns regarding adoption of EPA's 1999 Update of Ambient Water Quality Criteria for Ammonia?

The Washington Department of Ecology (DOE) received requests from regulated facilities to adopt EPA's new 1999 freshwater ammonia criteria because it would provide some relief to dischargers, as it is less stringent than EPA's previous ammonia criteria recommendations. Prior to proposing to adopt EPA's 1999 ammonia criteria, DOE embarked on a critical review of the new 1999 ammonia criteria for the following reasons:

- the new criteria are less stringent than previous criteria (1984 ammonia criteria, as modified in 1992)
- A draft EPA Region 10 biological assessment on Idaho's water quality standards evaluated the 1984 ammonia criteria and found toxicity test data in the literature that described effects to rainbow trout eggs during and soon after fertilization at or near the 1984 chronic ammonia criteria concentrations
- a literature review of toxicity test data for early life stages of rainbow trout found published data describing effects at concentrations lower than the 1999 chronic criteria

concentrations

In light of the above information DOE had concerns as to whether or not the new criteria would be adequately protective of sahnonids, and in particular those sahmonids listed under the Endangered Species Act.

What did DOE's review entail and what were the findings?

DOE reviewed EPA's 1999 Update of Ambient Water Quality Criteria for Ammonia document in detail. In addition, DOE, with assistance from EPA Region 10 and Idaho Department of Environmental Quality (IDEA), performed a literature search on published papers within the past 10 years which addressed salmonids and chronic ammonia toxicity to early life stages.

DOE compiled the results of their literature review along with their conclusions into a document entitled "Review of USEPA's 1999 Ammonia Criteria for Freshwaters". In this document, DOE proposed several alternatives for revising Washington's ammonia criteria. DOE's selected alternative and rationale is as follows:

Propose adoption of the 1999 Update acute criteria for all freshwaters, retain the existing chronic criteria for those freshwaters where salmonids occur, and propose adoption of the 1999 Update chronic criteria for all freshwaters where salmonids do not occur.

- DOE proposed adoption of the acute criterion equation because it would allow for higher ammonia concentrations in Washington freshwaters, and toxicity data indicate these concentrations would be protective of salmonids. This criterion would probably result in fewer and less restrictive ammonia limits (based on acute effects) in NPDES permits.

  DOE proposed revising the chronic criteria for waters where salmonids do not occur as it would allow higher ammonia concentrations in Washington freshwaters, and toxicity data suggest these concentrations would be protective of aquatic organisms, although DOE believed that the data which was reviewed may suggest the chronic criterion might not be protective of salmonids. It was DOE's opinion that restricting the area of application of the new criteria to waters where salmonids do not occur is a more protective approach to address the uncertainties in the toxicity data. DOE believed that based on their review of some early life stage data, the existing chronic criteria for "salmonids present" would be protective of early life stages of salmonids (Calamari *et al.* (1977, 1981); Solbe and Shurben (1989); Thurston *et al.* (1984); Burkhalter and Kaya (1977)). However, DOE believed that based on the data in Arillo *et al.* (1981a) the existing criterion might not be adequately protective of salmonids. DOE determined that given that the existing "salmonids present" criterion is the more stringent of the chronic criterion for salmonids they decided to take a conservative approach to revising their criterion and retain the existing chronic criterion in waters where salmonids are present. These criteria would result in fewer and less restrictive ammonia limits (based on chronic effects) in NPDES

permits in waters where salmonid habitat is not a beneficial use, and no change to the current permitting in areas where salmonid habitat is a beneficial use.

In light of the approach DOE is proposing with regard to the adoption of 1999 ammonia criteria for salmonids, why does EPA believe the 1999 ammonia criteria to be protective of salmonids?

After EPA Region 10 had reviewed DOE's document, several questions arose in our minds regarding the studies DOE cited and based their conclusions. EPA Region 10 posed these questions to EPA Headquarter's staff who had developed the 1999 ammonia criteria. Based on the information Region 10 received in response to our questions, and information available to date on ammonia and its effects to salmonids, the 1999 ammonia criteria should be protective of salmonids. Below are the questions Region 10 posed to EPA Headquarters and the responses received.

How did EPA use the 5 studies which DOE refers to their review?

How was the salmonid data used in the derivation of the ammonia criteria and why?

Has EPA reviewed the Arillo et al. 1981 study that is cited. If so, what was revealed about the study and what are EPA's concerns regarding this study?

The Arillo et al. (1981) study did not consider survival, growth, or reproduction, which are the effect endpoints on which EPA bases all its chronic criteria. Therefore, EPA did not and would not use the Arillo results. And, as an aside, it appears to be speculation that Arillo's measured biochemical changes would cause effects on survival, growth, or reproduction. Indeed, most of the other available data seem to argue against such effects occurring at the concentrations at which Arillo found biochemical changes.

Turning now to the salmonid studies in the 1999 Update, EPA did not average the results together to set an SMCV or GMCV, because of substantial disparities between the results. Nor did EPA count Oncorhynchus in setting N, the number of tested species. Nevertheless, EPA did compare the results against the criterion.

At 25°C EPA's criterion is below any salmonid EC20. But that has not been the issue. What is of concern is the criteria values at low temperature. Consequently, the criteria value at the test condition pH and temperature was calculated and compared with the EC20.

Of the salmonid studies tabulated in Table 5 of the 1999 document, we can dismiss the Oncorhynchus mykiss results of Burkhalter and Kaya (1977) as irrelevant. Likewise, we can dismiss the Oncorhynchus clarki results of Thurston et al. (1978) as irrelevant.

Neither study tested at low enough concentrations to avoid lethality. Hence all that could be determined from this study was that the effect level was somewhere below the extremely high test concentrations.

That leaves the Oncorhynchus mykiss data of Thurston et al. (1984b), Solbe and Shurben (1989), and Calamari et al. (1977, 1981), and the Oncorhynchus nerki data of Rankin (1979). These studies are not exactly equivalent. The Thurston study was a five year full life cycle test. The others are 62-73 day ELS tests. The EC20s from Thurston and from Rankin are above the criterion. Those from Solbe and from Calamari are below the criterion. The geometric mean of the ratio EC20/Criterion from these four studies is above 1.0, as shown in the table below. This indicates that the EC20 can be expected to be above the criterion, and that the criterion is protective of the taxon.

Table 1. Comparison of salmonid chronic EC20s with the 1999 criterion applicable to the test conditions.

Study	Original EC20 (mg NIL)	1999 Criterion @ Test pH & Temp (mg N/L)	Ratio EC20/Criterion
Thurston	8	3.57	2.24
Solbe	2.55	4.18	0.61
Calamari	2.6	4.7	0.55
Rankin	2.13	1.25	1.74
Geometric mean			1.07

Of the other studies that yielded useful information, we may compare the criterion against the Rice and Bailey (1980) pink salmon effect concentration discussed on page 57 of the 1999 document. At the test pH and temperature, the chronic criterion is 6.74 mg N/L, well below the approximate EC20 of 11.2 mg NIL. However, for the reasons described in the 1999 Update, this study is not a true ELS chronic test, and therefore does not appear in Table 5.

We may also compare the criterion against the Hermanutz et al. (1987) results discussed on page 60 of the 1999 document. Hermanutz found some reductions in biomass at concentrations above 2.29 mg N/L under conditions where the criterion would be around 2.26 mg N/L. However, the Hermanutz et al. is a field study and therefore the results do not appear in Table 5.

In summary, there is great variability in the salmonid data. Considering the central tendency of the data and the protective aspects of the criteria derivation procedure, salmonids should be protected by the criterion. As with all science, there will always be

The draft document pointed out some of the complexities inherent in determining and ensuring an appropriate/adequate/acceptable level of protection for aquatic life species, more spec ically, for salmonid species. The draft document presented several insightful alternative approaches for revising the state's acute and chronic ammonia criteria for freshwaters for the protection of salmonids and nonsalmonid species.

EPA supports Washington in their election of ammonia criteria to protect freshwater aquatic life. EPA believes Washington's approach is a reasonable approach to ensure protection of salmonids from adverse affects from ammonia, especially given (1) the range and status of salmonids in Washington, (2) salmonids are a commercially and recreationally important species in Washington, as well as certain salmonids are listed as threatened or endangered under the Endangered Species Act , and (3) the State's concern regarding an acceptable level of risk for these species. Additionally, EPA believes that Washington's approach is logical given the time frame for the State's current triennial review.

Are States and Tribes in Region 10 revising or planning to revise their ammonia criteria in the near future? If so what approaches to adoption of ammonia criteria are being taken by these States and Tribes?

The Idaho DEQ adopted EPA's 1999 ammonia criteria statewide in March 2002. More specifically Idaho has adopted EPA's recommended acute criteria for ammonia when salmonids are present for all waters in Idaho and two different chronic criteria depending on whether or not fish early life stages are present, as recommended in the 1999 Update. In support of this approach Idaho DEQ prepared a technical justification document.

The Washington DOE developed a proposed revision to ammonia that includes the 1999 Update recommendations for acute criteria (salmonids present) for all freshwaters of the state, retains the state's previous chronic ammonia criteria (which is based on EPA's 1984 Ammonia Criteria guidance) in all freshwater where salmonids are present and the 1999 Update recommendations for chronic criteria (early life stages present and absent) for all freshwaters where salmonids are absent. In support of this approach Washington DOE prepared a technical review and justification document.

Currently we are not aware of other States or Tribes in Region 10 revising their ammonia criteria.

Has EPA consulted with FWS or NMFS on the 1999 ammonia criteria?

No, not at this time. It is expected that consultation on ammonia will occur at the Regional level when EPA approves Idaho's revised ammonia criteria. We would expect this consultation to occur sometime in late 2002.

What are EPA Region 10's current recommendations with respect to State and/or Tribal

some, although limited, uncertainty in EPA's criteria development. The variability in the salmonid data has not resulted in an unusual level of uncertainty in the ammonia criteria document.

What does EPA think about the margin of safety approach and/or the risk management approach taken by DOE in recommending their selected approach?

The approach described in the document differs from EPA's procedures for deriving criteria in at least one significant way, and would not be used for national criteria derivation. The approach places heavy emphasis on the Species ***Minimum*** Chronic Values, rather than Species ***Mean*** Chronic Values. When EPA lowers an acute or chronic criterion to protect a recreationally or commercially- important species, it sets it at the mean value, not the minimum value for the species. When multiple studies contribute to the mean value, one-half of the individual study results can be expected to be below the criterion. EPA does not interpret this to signify that using the mean value to reset the criterion would fail to protect the species. Quite the opposite, since the mean is more likely to represent the true effect concentration, EPA considers that resetting the criterion by using the mean will protect the species, and is unlikely even to express uncertainty about the adequacy of such a criterion.

The use of the minimum value among replicate tests will tend to maximize the vulnerability of the criterion to experimental variability and error, and is therefore not . considered to be a sound procedure. The more data that are available, the more quirky and extreme the use of the minimum would become. For this reason, it seems unlikely that EPA would place great emphasis on the minimum value among replicates.

Nevertheless, the margin of safety and risk management approach appears to be a reasonable approach for states and tribes desiring an additional level of protection for aquatic life. As with other reasonable approaches used by states desiring additional protection, EPA would not disapprove of the resulting criteria. While EPA would support state retention of the 1984 or 1992 criterion, EPA believes that its current criterion is scientifically-based and appropriately protective.

Does EPA support DOE's findings, conclusions and recommendations?

YES.

EPA Region 10 reviewed the Department of Ecology's draft document entitled, "Review of USEPA's 1999 Ammonia criteria for Freshwaters" 5/24/00. EPA can appreciate the time and effort DOE staff put in analyzing some of the more salient issues regarding ammonia toxicity.

adoption of the 1999 ammonia criteria?

EPA recommends states and tribes adopt the 1999 Ammonia Criteria. As with all of EPA's criteria recommendations, the available data which was reviewed for ammonia, indicate that, except possibly where an unusually sensitive species is important at a site, freshwater aquatic life should be protected if both the conditions for the acute and chronic concentrations are satisfied.

We feel it is important for States and Tribes to note that the 1999 Update highlights a number of points which are well worth noting concerning the criteria. One point which is important to be aware of is as follows:

"When a threatened or endangered species occurs at a site and sufficient data indicate that it is sensitive at concentrations below the acute and/or chronic criteria, it is appropriate to consider deriving site-specific criteria."

Again we reiterate that EPA has no data indicating or confirming that the 1999 ammonia criteria would not be protective of listed and endangered species. Although the 1999 ammonia criteria are EPA's most current recommended criteria EPA would support states and tribes adopting more stringent criteria based on a risk management decision/approach or additional scientific information. If information and/or data indicates certain species are not protected by EPA's current ammonia criteria recommendations, we would suggest development of a site specific modification to the ammonia criteria.

We strongly encourage states and tribes to consider approaches which might better incorporate local concerns. This may include providing an additional level of protection if data indicate there is an unusually sensitive and/or locally important species at the site.

EPA also recommends States and/or Tribes consider any additional and/or new information relevant to either making a risk management based decision, as did the Washington DOE, or developing more tailored site specific criteria.

A final point we would like States and Tribes to note is because the 1999 Update has different equations for both acute and chronic criteria, based on salmonids present or absent and early life stages present or absent, respectively, States and Tribes need to include specific implementation language addressing how any necessary determinations are made. EPA has prepared guidance on suggested approaches for implementation of the ammonia criteria.

can Ecology justify further reductions from water quality standards for listed species, if listed species are present in these waters? How will "cumulative impacts" be accounted for and tracked?

4. How is the baseline determined for natural water bodies that do not meet the water quality standard from which the .2 mg per liter reduction is allowed? We understand that an estimated "attainable" baseline will be calculated for water bodies with "human made" structural limitations. Please provide more detail about how "achievable" DO targets will be determined?

5. We understand that water bodies will be allowed to fall below the criteria in the table only once every ten years on average. Does this mean the standards can be violated once before the water body is listed as 303 (d)? How are the ten-year averages determined?

6. Please provide more implementation detail about how DO measurements are collected by Ecology's ambient water quality monitoring program.

7. If criteria are based on assumptions about intergravel DO levels we suggest Ecology develop some provision in the standards that ensures average mimimum dissolved oxygen intergravel levels are 8 to 8.5 milligrams per liter.

8. How does Ecology determine "natural levels" for Lakes DO in order to compare the effects of any proposed changes?

Agricultural Water Supply

We support the proposed criteria for protecting agricultural water supplies. We suggest a pH of 6.5 to 8.4 for the protection of salmonids when water from agricultural lands is discharged directly or passively without treatment into water bodies containing salmonids.

Ammonia

Ecology recommends changes to the existing criteria where the water is not listed as salmonid habitat. They propose to keep the existing criteria where the water is designated as salmonid habitat, and use EPA 1999 criteria. As Ecology states, the EPA 1999 proposed change in criteria are less stringent and may not be protective of all life stages of salmonids. The biggest uncertainty is the lack of available data on salmonids. EPA 1999 recommends 2.43 mg N/L vs. current values of 1.29-1.36 mg N/L. It appears Ecology has recommended a partial adoption of the EPA criteria, thus allowing higher concentrations to be discharged into waters of the state.

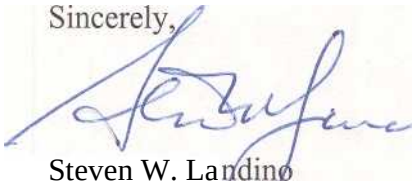
Because the EPA 1999 criteria does not appear to be protective of all life stages of salmonids, NOAA Fisheries recommends that Ecology keep the existing criteria for all waters, regardless of the waterbody use designation. Having multiple designations of areas, and different requirements for each area could result in NPDES permittees requesting receiving water designation changes, which could allow waters to be downgraded.

Needed Definitions:

NOAA Fisheries recommend Ecology provide definitions for "irreversible human changes" and "irreversible impact." Understanding these terms will be important during our §7 consultation with EPA on their adoption of the final surface water quality standards.

In closing, NOAA Fisheries believes good water quality is paramount in regaining viable salmon populations in Washington State. We define a viable salmonid population as an independent population of any Pacific salmon that has a negligible risk of extinction due to threats from demographic variation, local environmental variation, and diversity changes over a 100-year time frame. We define an independent population as any collection of one or more local breeding units whose population dynamics or extinction risk over a 100-year time period are not substantially altered by exchanges of individuals with other populations (NOAA 2000). NOAA Fisheries has identified four parameters which form the key to evaluating salmon population status. They are: abundance, population growth rate, population spatial structure, and diversity. NOAA Fisheries focuses on these parameters because they are reasonable predictors of extinction risk (viability) and they reflect general processes that are important to all populations of all species. For example, *many* factors influence abundance, (e.g., habitat quality, interactions with other species, harvest programs, etc.). Many of these factors are species- or ESU-specific. A population's spatial structure and diversity depends fundamentally on habitat quality, spatial configuration, and dynamics as well as the dispersal characteristics of individuals in the population. Adjusting temperature and dissolved oxygen standards to those basins with late summer spawning, early-mid-summer steelhead smolting, and Puget Sound ocean-type spring/summer chinook juvenile rearing, will help ensure affected salmonid population spatial structure and diversity is protected. To attain viable populations of salmon again, we must maintain the water quality attributes required by salmon, NOAA Fisheries strongly urges Ecology give careful consideration to our comments provided above.

Sincerely,



Steven W. Landino
Washington tat Branch Chief

Attachment - References

cc: Randy Smith, EPA
Ken Berg, USFWS
Billy Frank, NWIFC
Jeff Keonings, WDFW
Mike Crouse, NOAA Fisheries

References

EPA 2001. Summary of Technical Literature Examining the Physiological Effects of Temperature on Salmonids - Issue Paper 5. EPA-910-D-01-005. 154p.

Hicks, M. 2002. Evaluating Standards for Protecting Aquatic Life in Washington Surface Water Quality Standards - Temperature. Ecology Publication 00-10-070. 189p.

NMFS 1999. Approval of Oregon water quality standards for dissolved oxygen, temperature, and pH, OSB 1999-0146, Portland, OR.

NMFS 2000. Viable Salmonid Populations and the Recovery of Evolutionary Significant Units. NOAA Technical Memorandum NMFS-NWFSC-42. 156p.

ODEQ (Oregon Department of Environmental Quality). 1995. Dissolved Oxygen. Final Issue Paper. 1992-1994 Water quality standards review. Standards and Assessment Section, Portland, OR.

Spence, B.C., G.A. Lomnicky, R. Hughes, and R.P. Novitski. 1996. An ecosystem approach to salmonid conservation. TR-4501-96-6057. ManTech Environmental Research Services Corp., Corvallis, OR. 269p.

WDFW (Washington Department of Fish and Wildlife) and WWTIT (Western Washington Treaty Indian Tribes). 2002. SaSI (Salmon and Steelhead Stock Inventory) (in preparation) WDFW, Olympia, WA.

PORT ANGELES BUSINESS ASSN
STAN FORSELL

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3127

PABA COMMENTS ON THE PROPOSED WATER QUALITY STANDARDS FOR SURFACE WATERS

March 2, 2003

The Port Angeles Business Association is a group of Port Angeles area businesses that promotes the economic health and sustainable economic growth of our community. As such, we were unpleasantly surprised at the low level of public awareness and the short time opportunity available to study and respond to this very complex proposal. **For the following reasons the PABA does not support the proposed changes in WAC 173-201A-Water Quality Standards for Surface Waters.**

Now is not the time. Our community, like many other rural communities in Washington, is suffering from the recent collapse in natural resource industries and decline in tourism. Small and family businesses have been particularly hard hit. Even a small fraction of the " Worst Case Cost" will be devastating those businesses who are struggling to survive.

This is not the place. We believe that the northern and western areas of the Olympic Peninsula have some of the best and most pristine water quality in the state-while supporting active tourism, recreational, timber, agricultural and fisheries industries. We question the need for more protection. Regarding stormwater, the Small Business Economic Impact Statement states that Ecology's proposed changes will not require any substantive changes because the currently accepted practices represent the best available methods for managing urban stormwater. Why make the changes if nothing will change?

The proposed process of Tier III water classification for "Outstanding Natural Resource Waters" is on open door for the production of economic hardship through bureaucratic mischief. Ecology is giving itself broad authority to make the benefit cost decisions that should be made by the legislature. It is our good fortune to have an abundance of potential Tier III waters. Because of this, the implied zero impact goal for the protection of these waters, is of serious concern.

Several members have raised their concern about the reference to the storm water manual recommended by Ecology. **There is a general belief that using this manual will preempt city and county storm water plans with unnecessary and more costly water protection measures.** We also see the reference to this manual as an effort for Ecology to gain control over city and county programs, by using it as a standard for Ecology's approval of local storm water management programs. Either use is unacceptable.

The December 19, 2002 letter from Dave Peeler to file and published in your Small Business Economic Impact Statement is a major concern. While it states that "at this time, there is no evidence that the forest practices rules will have to be changed in any way to meet the new water quality standards" it clearly opens the pathway for regulatory change if these standards are not met. **This proposal undermines the goal of regulatory**

WA 4/1/03

WA DEPT OF AGRICULTURE
BOB ARRINGTON
MAR 0 7 2003

STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE

Pesticide Management Division • P.O. Box 42560 • Olympia, Washington 98504-2560
Telephone (360) 902-2010 • Fax (360) 902-2093 • TDD (360) 902-1996

March 6, 20003

Susan Braley
Surface Water Quality Standards
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Ms. Braley:

The Washington State Department of Agriculture (WSDA) is pleased to submit the attached comments regarding Ecology's proposed changes to the Surface Water Quality Standards, Chapter 173-201A WAC. WSDA's comments are being submitted to you electronically today, and will be followed by a "hard copy" submittal on March 7th.

WSDA would like to commend Ecology on the effort put forth in developing the proposed standards, and the extent to which the agency so listed public and private comment. We sincerely hope that you will find the attached comments useful in moving forward towards the adoption of am environmentally protective yet "workable" rule.

If during your review of the attached comments, you have any questions, please feel free to contact Kirk Cook, Water Quality Manager at (360) 902-2047 or email at kcook@agr.wa.gov.

Sincerely,

Bob Arrington
Assistant Director
Pesticide Management Division

Washington State Department of Agriculture
Agency Comments
Proposed Revisions to Chapter 173-201A WAC

The following are a compilation of major technical and policy related comments that WSDA feel s are necessary to bring forth to the Washington State Department of Ecology during the comment period for the proposed surface water quality standards. Many of the proposed changes will have an effect of agricultural practices in the State.

Chapter 173-201A-020 WAC Definitions:

Ground water exchange means the discharge and recharge of ground water to surface water. Discharge is inflow from an aquifer, seeps or springs that increases the available supply of surface water. Recharge is outflow downgradient to an aquifer or downstream to a surface water for base flow maintenance. Exchange may include ground water discharge in one season followed by recharge later in the year.

Comment: The definition of the term "Ground water exchange" is confusing. The later half of the sub-definition of recharge appears to be the same as the sub-definition of discharge. If the author is referring to recharge downstream to surface water for base flow maintenance via surface discharge then this wording does not need to be in the definition. However, if the wording refers to discharge for base flow maintenance then the first sub-definition covers it.

Recommendation: delete the wording".... or downstream to a surface water for base flow maintenance...."

Chapter 173-201A-200(1)(c) WAC Aquatic life temperature criteria:

Except where noted, water temperature is measured by the "7-day average of the daily maximum temperatures", or "7-DADMaz" in degrees Celsius (^{o}C) and the equvalent Fahrenheit (^{o}F). Table 200(1)(c) lists the maximum temperatures for each of the aquatic life uses:

Comment: WSDA supports the proposed change from single daily maximum temperature criteria to a 7 –Day Average of the Daily Maximum Temperature. The proposal improves upon the current method of determining compliance with the standard. However, it is likely that there will still be instances where the proposed standard will be violated without endangering aquatic life that will result in 303(d) listing without environmental benefit.

Chapter 173-201A-200(3) WAC Water supply uses:

The proposed rule establishes water supply use criteria for domestic, industrial, agricultural, and stock watering. Subpart (a) specifies "general criteria that apply to the water supply uses described in WAC 173-201A-260(1)(a)-(c)"....Subpart (b) presents the agricultural criteria,

however the remaining criteria appear to be missing. There appear to be no specific criteria in "260" that relate to domestic, industrial, or stock watering uses.

Comment: What are the criteria for domestic, industrial, and stock watering uses?

Chapter 173-201A-200(3)(b) WAC Agricultural criteria:

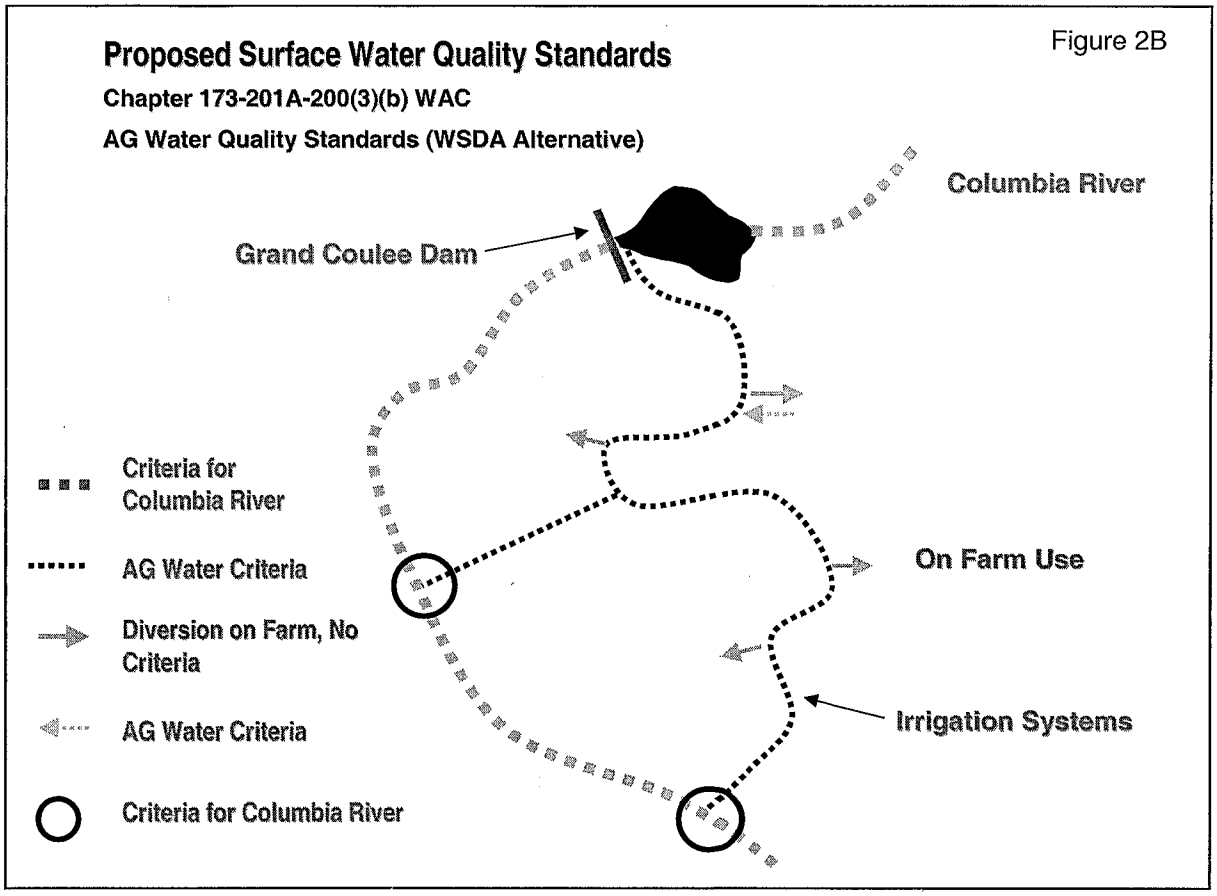
The criteria are applied to all rivers, lakes and reservoirs that are used for, or designated for use as agricultural supply water. These criteria are not to be applied on-farm or at individual points of use within irrigation projects that are designed to capture and reuse drainage water from individual agricultural operations. The criteria, which follow, are to be implemented as an arithmetic average value for the period of April1 – September 30. A minimum of three samples taken during this six-month period is to be used to determine the value for compliance. Since these criteria are not aimed at preventing short-term exceedences, sample values from the last consecutive three-year period, may be combined to create a stronger data base for determining compliance. To average multiple years, however, the number of samples in each monthly or bimonthly period must generally be equal so as to reduce the chance of seasonal bias.

(i) Electrical conductivity not to exceed 700 uS/cm
(ii) Bicarbonate not to exceed 339 mg/L
(iii) TSS not to exceed 75 mg/L
(iv) pH between 6.5-9.0

Comment: It is WSDA's understanding that given the language of this section coupled with the language in Chapter 173-201A-260(3)(f), irrigation ditches within an irrigation system will have the same criteria applied as the source water body plus the additional four criteria (example: systems within the Columbia Basin Irrigation Project must meet water quality criteria of the Columbia River from Grand Coulee Dam to the Canadian border, plus EC, Bicarb, TSS, and pH throughout the system). While WSDA sees a need to protect lower system water users, the adoption of new criteria is not the best way to achieve the goal.
WSDA would like to submit two alternatives to the current proposal:

1) Rely on the continued activity in the implementation of BMP's created by NRCS, WSU, and USDA to address occurrences of the four parameters, rather than implement additional criteria that are likely to add water bodies to the currently burdened 303(d) list for Washington State.

2) Implement only the agricultural water quality criteria within an irrigation system and impose the water body specific criteria only at the waste ways or point of direct return flow to the water body. Under this proposal, down system water users are afforded protection without overdue burden on the irrigation districts to maintain source water quality throughout the system, but only at the points of return.



Chapter 173-201A-210 Marine water designated uses and criteria:

The following uses are designated for protection in fresh waters in the State of Washington. Use designations for specific water bodies are listed in WAC 173-201A-612.

Comments:

1) The statement above refers to fresh waters in the State of Washington. Is this an error or is Ecology applying like standards to fresh and marine waters?

2) WSDA agrees with the language deferring to WDOH shellfish sanitation rules and those rules being fully supportive of shellfish harvest goals. However, it is unclear if these rules apply to both commercial and recreational shellfish harvesting. The language in the proposed rule appears to address only commercial harvesting.

Chapter 173-201A-260(1)(a) &(c) WAC Other water quality criteria and applications:

The following narrative criteria apply to all designated uses for fresh and marine water:

(a) Toxic, radioactive, or deleterious material concentrations must be below those which have the potential, either singularly or cumulatively, to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive

biota dependent upon those waters, or adversely affect public health (see WAC 173-201A-240 Toxic substances and 173-201A-250 Radioactive substances).

(b) Aesthetic values must not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch, or taste (see WAC 173-201A-230 for guidance on establishing lake nutrient standards to protect aesthetics).

(c) Runoff from nonpoint sources (such as from animal and human wastes or soil erosion from land-use activities) are not allowed to drain or to be discharged into surface waterbodies of the state, except when controlled with best management practices or treated with waste treatment technology, as approved by the department.

Comments:

1) The term "deleterious material concentrations" is ambiguous. Further, when "deleterious material concentrations" is coupled with "potential" and "cumulative" we are effectively banning any concentration of an anthropogenic compound from surface water. WSDA does not discount the potential of mixtures to cause adverse effects but believes there must be specific criteria established for regulating water quality. Through the NPDS permit process we routinely allow "deleterious" concentrations of compounds to be discharged into surface water. This wording implies that non-point sources of pollution are held to a higher standard than point sources.

2) Determination of adverse effect to human health is not the charge of the Department of Ecology. This determination should be made by the Washington State Department of Health. Chapter 173-200 WAC (Ground Water Quality Standards for the State of Washington) section 050(4)(b) requires the determination of protection for human health be done in consultation with the Washington State Department of Health. The surface water standards should be no different.

3) Determination of aesthetic values should be eliminated. If not eliminated at least not be left to narrative criteria. This is TOO open ended and is not in conformance with either the Maximum Contaminant Level (MCL) "secondary contaminates" in the Safe Drinking Water Act, state drinking water standards or the Ground Water Quality Standards.

4) Part (c) prohibits any runoff from nonpoint sources from entering surface water bodies, unless controlled by best management practices. This section raises the question regarding AKART and zero discharge. What is currently considered approved BMP's today may not be considered adequate under this new section. In the proposed rule language, agricultural BMP's, are developed without any requirement for consultation by WSU, WSDA, and NRCS. This leaves the sole determination as to adequacy up to the Department of Ecology that may not have the necessary expertise in this area.

6) In (c) the word approved is misspelled as *approveded*

Chapter 173-201A-260(2) WAC Natural and irreversible human conditions:

It is recognized that portions of many waterbodies cannot meet assigned criteria due to the natural conditions of the water body. When a waterbody does not meet its assigned criteria due to natural climatic or landscape attributes, or due to human structural changes that cannot be effectively remedied (as determined consistent with the federal regulations at 40 CFR 131.10), then alternative estimates of the attainable water quality conditions, plus any further human effects allowance specified in this section for when natural conditions are above a numeric criteria, may become an alternative criteria target for a waterbody.

Comment: As noted under subsection (3)(f), irrigation systems such as the Columbia Basin Irrigation Project are subject to the proposed water quality criteria. However, because of the construction and operational aspects of such systems it is reasonable to expect that several water quality criteria (temperature for example) will never be met. Chapter 173-201A-440 appears to require that a Use Attainability Analysis be conducted prior to establishing any alternative criteria.

Given that irrigation systems are likely not to ever be able to meet selected water quality criteria and the language contained in 40 CFR 131.10 and section 101(a)(2) of the Clean Water Act, why can't alternative criteria be set for irrigation district systems without conducting a Use Attainability Analysis? 40 CFR 131.10(k) seems to indicate that it can. It is suggested that proposed section Chapter 173-201A-430 be referenced.

Chapter 173-201A-330(1)(d) WAC Tier III-Outstanding resources waters protected:

Where a high quality water is designated as an outstanding resources water, the water quality and uses of those waters must be maintained and protected.
To be eligible for designation as an outstanding resource water in Washington, one or more of the following must apply:

(d) The water has areas of thermal refuge created by cold water seeps, springs, and ground water emergence areas that have been determined through biological and physical habitat studies to be critical to the long-term protection of aquatic species (for this type of outstanding resource water, the nondegradation protection would apply only to temperature).

***Comments*:** The language in this section has huge ramifications to all water users in the State of Washington. The language creates the potential for a substantial number of major streams in Washington State (Pitz, Sinclair, 1999) to be declared as outstanding resource waters and along with that non-degradation protection for temperature. The current language requires that only one of the four "tests" need apply in order to be eligible for designation.

Hydrologically, any stream that maintains flow year around exists partly because of the inflow of clean cool ground water which accounts for 68% of the total annual streamflow for upwards of 300 current and historical stream monitoring stations in Washington. These types of area of inflow have been documented to provide excellent habitat for fish species (Baxter, Hauer 1999). This fact is what allows streams that currently violate temperature criteria to maintain fish stocks. Designation as "outstanding resource water" further limits the ability to use need water resources for agricultural, public water supply, industrial and stock water uses.

WHITMAN CO PLANNING COMMISSION
JEAN WARDWELL

MWH 4/1/03

Comments By:	**Jean Wardwell, Chairperson** Whitman County Planning Commission
Date:	**January 28,2003**
Regarding:	**WRIA 34 Water Quality Use-Based Criteria**

"My concern is with inherited waters. Waters inherited from non-Washington political entities along our three land borders. There are eleven (11) counties on the border with Oregon. The Columbia River provides a barrier, protecting seven (7) of the eleven (11) counties. There are four (4) counties along the Idaho border. There are six (6) counties on the border with British Columbia. One (1) is protected by the Straits of Juan de Fuca. There are nineteen (19) counties along our state borders. Eleven (11) counties have no geological barrier to protect them from inheriting part or all their waters from those entities. Whitman is one of these counties.

Let us consider Paradise Creek. It is twenty (20) miles long. Paradise Creek is part of the South Fork of the Palouse River watershed. It starts from a spring near the summit of Moscow Mountain. At that point, the water from the spring does not meet ph standards for the Washington Department of Ecology. The creek then meanders down Moscow Mountain past homes with septic tanks that do not have or meet Washington Department of Ecology standards. It flows through some farmland and then through the city of Moscow, Idaho. In Moscow it is subject to storm water runoff. 400-500 feet before Paradise Creek enters the state of Washington the Moscow Sewage Treatment Plant dumps its wastewater into the creek. This sewage treatment plant has been in violation of EPA standards for at least a decade and probably longer.

What use do you see for this creek? Wading? Swimming? Fishing?

This is a creek that does not meet the Department of Ecology standards at its' origin and has a rough flow until it enters our county and watershed. This is just one small creek in the eleven (11) counties that inherit some or all of their waters from other political entities. What provisions have you put in your standards for dealing with inherited waters?"

Jean M. Wardwell
1145 NW Clifford
Pullman, WA 99163
jmwardwell@yahoo.com

Received 1/28/2003
Spokane Public Hearing
Bev Poston - Hearing Officer

WHITMAN CO PLANNING DIRECTOR MAB 2/1/03
BORDSEN MARK

Comments By:	**Mark Bordsen** Whitman County Planning Director
Date:	**January 28,2003**
Regarding:	**WRIA 34 Water Quality Use-Based Criteria**

In general, the change from a class-based system to a use-based system seems to be positive, but there are some concerns.

The water quality standards currently assigned to Whitman County under the class-based system are unattainable. While we think that water quality standards from a use-based system should be more realistic, it will do us no good if the standards cannot be achieved. So we believe that use-based is better, but we cannot accept the standards that are being proposed.

This part of Washington State has a climate that does not seem to be recognized by those who have set and who propose standards. Hot August nights and hotter days wreak havoc with water temperatures, and in many cases, dry up the drainages completely.

The ultimate result of such standards might envision vegetation of brush and trees up every draw and along the banks of each creek and river. If this is the goal, it is important to look at some consequences.

- First is that vegetation alone will not "cool" water temperature. Shade can keep water from getting hotter – common sense tells us that, but in our region will not make the water cooler than it is. Water needs to flow or emanate from ground water sources to start out and remain cool in our area.

- Second is that these standards could ultimately lead to the loss of agricultural use of lands adjacent to drainages. If so, the land owners must be compensated for the loss of these lands. Local governments must also be compensated for the loss of tax revenue historically generated from these lands.

- Third, low flow in the summer would normally cause many drainages to dry up, or cease to flow, except those that are fed by legal treated sewage plant discharges. There is a dilemma here – keep that poor quality water in the creek or dry it up completely.

- Fourth, it is highly unlikely that drainages in Whitman County will ever be "swimmable" or "wadable" because most of them are too shallow and mud-lined.

Received 1/28/2003
Spokane Public Hearing
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Also, in most cases, few people will want their children wading in any of these drainages. Therefore, these kinds of uses should not be imposed upon these waters.

- Fifth, standards should be based upon what is practical and possible. Research should be undertaken to acquire a small watershed, and do all of the things that scientists can naturally do to make it the best. Then take the water quality measurements for temperature, dissolved oxygen, and so forth and see what you get. This would be a great way to set "baseline" standards for future performance. Those might then be standards that can possibly be met.

File: group2.128

CITY OF SUNNYSIDE

City Manager 837-3997
City Attorney 837-2612
Finance Dir. 837-3782
Public Works 837-5206
Planning 837-7999

Fire Dept. 837-3999
Police Dept. 837-2120
Recreation Dept. 837-8660

818 EAST EDISON AVENUE SUNNYSIDE, WA 98944-2206

March 7, 2003

Department of Ecology
Water Quality Program

MAR 07 2003

Washington State
Department of Ecology
Attn: Susan Braley
P.O. Box 47600
Olympia, Washington 98504-7600

Re: Public Comments on Water Quality Standard Revisions

Dear Susan Braley:

I appreciated the opportunity to attend the Water Quality Standards Revision Overview Workshop and Public Hearing located in Pasco January 29, 2003. From the meeting I was reminded that general water quality standards normally are considered to cover a wide range of circumstances, thus sometimes not being very flexible to site-specific projects. I hope with these comments I might be able to identify some specific needs that should have been discussed generally, but could use further consideration.

Background:

You may or may not be aware that the City of Sunnyside, Washington is in the process of making wastewater plant improvements to comply with the water quality standards as they are now recorded in state law and administered by the Department of Ecology. The effluent from our wastewater treatment facility discharges directly to Joint Ditch 33.4, which is currently under a default classification of "Class A" water of the state. Approximately three miles downstream from our discharge point, JD 33.4 discharges into Sulphur Creek Wasteway, which is shown in state law as being a "Class B" waterway. Approximately two miles downstream from the convergence of JD 33.4 and Sulphur Creek Wasteway, the Sulphur Creek Wasteway discharges into the Yakima River, which is classified as a "Class A" waterway. The City of Sunnyside over the past fifteen years has spent millions of dollars upgrading our Wastewater Plant to accommodate regulations, which come from EPA and are passed on through our NPDES Permit by the Department of Ecology. Because of a current wastewater NPDES Permit, which the City of Sunnyside currently holds, we are required to spend, as determined by current cost estimates some eleven (11) million dollars to bring our Wastewater Plant into compliance with the current "Class A" requirements. Another project alternative, because of the fear of future unknown water quality regulation changes, we are seriously considering is the moving of our wastewater from the streamflow and developing a Land Treatment Farming operation for fifteen (15) million dollars. As you might imagine, this is becoming a tremendous financial burden on the

citizens of the City of Sunnyside, which by the way is listed in the 2000 Census Family Population Data as 29.1% below poverty level. JD 33.4 is nothing more than a large drainage channel, which primarily picks up the tail waters from many farms and the subbing water from numerous feedlots and dairy operations, as well as some stormwater runoff. I will not discuss the stormwater runoff comments in this letter however, as you are aware, this program, over the next few years, will require extensive financial obligations from the citizens of Sunnyside to comply with the new Eastern Washington stormwater regulations.

Each of these proposed Water Quality Standard Area Revision do have an effect upon the cities planning and compliance level. At this time I would like to be specific in my comments about each area, as well as show some charts and graphs that are attached, which might lend some support to the question or comment that I do have.

1. Temperature

   It is good to see in the proposed revisions that there is a differential between temperature requirements for fish spawning and early tributary rearing (55.4°F) to the criteria for warm water fish (68°F). It is also good to see that instead of a one-day maximum temperature limit that there is a seven-day average limit. These seem to be very good changes, however, I am concerned that there might need to be another category that allows a higher temperature in bodies of water, which are not normally inhabited by fish species, such as JD 33.4.

   As can be seen from the two charts attached, entitled 'Temperature Drain Ditch No. 3' and 'WWTP Effluent Temperature'. The City of Sunnyside effluent does exceed the highest temperature allowed for warm water fish (68°F) in the month of June through the month of September. However, as one looks at the overall temperature changes, as shown, in Sunnyside Drain No. 3 Chart, by the time the water reaches the lower limits or Item No. 6, Midvale Road/Recycling, the temperature is well within the allowed 68°F limit, except for the month of August and October, which is shown as 69°F. It is my concern that the water standards will be applied to our effluent permit as has been the standard in the past with no consideration given for the actual stream that our effluent discharges into.

   In practice the Water Quality Standards have been developed from a comprehensive point of view, however have been administered specifically. That is to say that if our temperature criteria of the effluent was determined to be a certain amount such as 68°F, it would not matter what the overall comprehensive evaluation of the stream temperature criteria. The number would be the limiting factor. I am concerned that if there is not a category specifically mentioned in the temperature criteria, which might lend itself to a more general "catchall" for drain ditches, ponding on shoulder of roads, artificial drainage swales, which mimic wetlands, but are not classified as wetlands then all water bodies not mentioned by name would be defaulted to one of these five temperature categories. Some discussion in my estimation needs to happen in the code language, which will take these special cases into consideration and not just default to the criteria chart.

2. Dissolved Oxygen

In similar fashion the dissolved oxygen requirements mirror the same concerns I have so stated in the temperature criteria section above. As can be seen from the 'WWTF Effluent DO Chart', the City of Sunnyside effluent does not meet the warm water fish habitat water body criteria. However, if you look at the 'DO of Drain Ditch No. 3 Chart', the dissolved oxygen minimums are well above the warm water fish habitat use category. It is my concern, again, that this criteria number of 7.0 milligram per liter or 5.0 milligrams per liter as a minimum will become the absolute limit for all waters for the State of Washington and thus require a significant financial obligation by communities to adhere to the dissolved oxygen criteria in the wastewater effluent, wherein the stream that they are discharging into for miles on either side of the wastewater discharge point complies with the requirement for the dissolved oxygen.

3. Bacteria Criteria

The existing water quality "Class A" waters, which is defined in JD 33.4, and which our effluent discharges into is defined as the fecal coliform limits of 100 colonies per 100 milliliters. The new requirement as shown, with my understanding is 100 colonies of Ecoli per 100 milliliters of water.

After the meeting in January at Pasco, where I reviewed this concern with the Department of Ecology, we tested our effluent water and also the drain ditch water to determine the Ecoli limits. As seen on the chart, 'Wastewater TP Effluent Ecoli colonies per 100 milliliter', the effluent discharge is 22 colonies per 100 milliliters, whereas the ditch we are draining into is as high as 1600 colonies per 100 milliliters of water. This new revised criteria from fecal coliform testing to Ecoli criteria might make some overall changes to our operations. However, as can be seen from that attached chart, the City of Sunnyside's effluent is not the contributing factor to any Ecoli pollution in this water body.

It is unfair to require that the City of Sunnyside wastewater effluent, by permit, meet an absolute "Class A" requirement of 100 colonies when the stream is so far out of compliance and the effluent does not even affect the stream.

4. Agricultural Water Supply

This specific section for Agricultural Water Supply Criteria does not affect the City of Sunnyside directly, however, does secondarily affect us because of our predominantly agricultural environment in this region of the state. The City of Sunnyside in 2002 celebrated its centennial year. A hundred years ago the irrigation system for this region of the state was just being developed. Since then many thousands of acres have been developed into productive agricultural crops. The Yakima River Basin has been to some declared as the fruit basket

of the Pacific Northwest, and as such lives up to that title by producing a major portion of many agricultural crops worldwide. Certainly in the last one hundred years the water quality for agricultural use has fluctuated greatly.

Within the last ten or fifteen years the emphasis on surface water quality has become one of the front running objectives for all irrigation companies, as well as individual agricultural producers. Being a local agricultural producer myself and having worked with municipal wastewater regulations for years, I am primarily concerned with this regulation from one primary perspective, which is, once numeric criteria is introduced as an absolute standard for water quality elements, the numeric amounts will over time become more restrictive as future scientific studies and technology become refined. A few years ago the standard in the water industry was one part per million, then it went to one part per billion and now in some parts, it's one part per trillion. My feeling is that this criteria needs to be identified as a goal rather than a standard. In time the words, as stated in your focus announcement, "The proposed criteria will be broadly applied to rivers, lakes and reservoirs throughout the state. However, the criteria are not intended to be applied to waters used on farms or irrigation projects", will become more restrictive. In practical application the numeric criteria will become the standard and in time all agricultural waters of the state will be required to maintain these for described elements with others being added as technology and political pressure dictate. Certainly these numeric criteria may be well within the parameters already existing in most of the irrigation water used in the State of Washington, however, establishing a numeric criteria will in time create a more restrictive use of agricultural waters and cause irrigation companies and agricultural producers inflated costs to maintain irrigation water at the then prescribed criteria levels. I might ask at this point, "What is the goal?"

5. Antidegregation Implementation Plan

I for one do not want to see the waters of the State of Washington or our nation become more polluted than they are at this time. However, I hope that this Implementation Plan is based on common sense practical fashion and not just relying upon scientific study. I agree that the waters of the state need to be protected for swimming, boating and fish habitat. I agree that there is a difference between irrigation water, agricultural water, domestic water and pristine water quality found in the upper reaches of the watershed. It is important to develop an implementation plan that focuses on certain regions in the river basin including the science and use in those regions. I have discussed this Water Quality Revision item with a couple of Department of Ecology employees and found that it seems to be rather confusing in the way it is written and the goals and objectives that this Implementation Plan wished to achieve. This may not be possible, but I would like to reserve the right to review this plan in more depth with possible comments in the future.

6. Standards Change from 'Class Based to a Use Base' Format

I am in support of the standard revision for "Class Base" to a "Use Base" format for water bodies for the State of Washington. I believe that it is unfair for a drain ditch in the lower section of the drainage basin of the Yakima River to be classified in the same classification as much of the water in the upper reaches of the Yakima River Basin. This could be applied to all streams in the State of Washington. JD 33.4, which the City of Sunnyside effluent discharges into is not a stream which I would classify as spawning, early rearing or even human use waters, by any stretch of the imagination. For a number of years, I have petitioned and discussed with the Department of Ecology representatives that the JD 33.4 to its convergence with the Sulphur Creek Drainway should be classified as a mixing zone for the requirements on our effluent water quality. This drainage ditch has been piped for approximately a mile south of our discharge point, thus allowing for no uses of this stream. This drain ditch then goes for at least another two miles to the convergence of Sulphur Creek Wasteway as described above. In that length of drain ditch there is no swimming, wading or sport fishing of any nature. There is also some discussion with the Department of Fisheries that a Fish Screen should be installed, thus not allowing any fish species to inhabit this two-to-three mile section of JD 33.4. How could it practically be classified the same as more pristine spawning waters is beyond my understanding.

7. Miscellaneous Revisions

Ammonia Criteria

After discussing this item with you, I have come to the conclusion that this item may have some impact on the City of Sunnyside, if the existing chronic criteria is allowed to continue being applied to all fresh waters in the State of Washington. There is a great deal of study, which needs to happen, to determine the actual implications between the new EPA recommended acute criteria and the new EPA recommended chronic criteria. However, I did appreciate you explaining to me generally, what this information was and how it was applied to the decision to leave the majority of the water in the existing Ecology regulations.

I am interested to hear any information on the outcome of the negotiations that are proceeding in Idaho and will have additional comments as this process moves along.

In conclusion I would like to positively express my excitement to know that the Water Quality Standards might more closely reflect the actual usage of the water bodies of the State of Washington, and in the process help resolve some of the concerns not

only related to fish habitat while improving the water quality for recreational, agricultural and domestic uses. I do have those concerns that I have mentioned above that are site-specific to the wastewater effluent discharging from the City of Sunnyside's Wastewater Treatment Facility. I am certainly not naïve to the point of not understanding that our Treatment Plant needs constant improvement and that the citizens of the City of Sunnyside need to be progressive and important partners in the cleaning up of the water in this region of state. The implementation of standards and criteria, once codified, become subject to the administrators who write the NPDES Permits. It is important from my perspective that common sense implementation, although not easy to define in law, be instilled in all administrators. These Water Quality Revisions in my estimation have the potential to ease the financial burden for the City of Sunnyside to the tune of millions and millions of dollars in the next few months. I would encourage the administrators for this program and those that are writing these water quality revisions that they assist the EPA in making a quick comprehensive review and approval, hopefully with some of my suggestive narrative.

EPA does play a major role in approving these Water Quality Revisions. Can EPA make changes? Will those changes go through a public review or will they just be incorporated in to the codified law?

I would be happy at any time to visit with you concerning these comments and I hope that the information provided was understandable. I look forward to the conclusion of this revision process and hope that the approval from EPA will be timely received thus allowing us to reevaluate the costs associated with the most current wastewater facility improvement needed for the current regulations and standards.

Thank you for your consideration in this matter. I am looking forward to a positive conclusion that will not only be beneficial to the City of Sunnyside and the streams that we discharge into but will be beneficial to the water environment and the citizens of this great state.

If you have any questions, please contact me at my office, (509)837-5206.

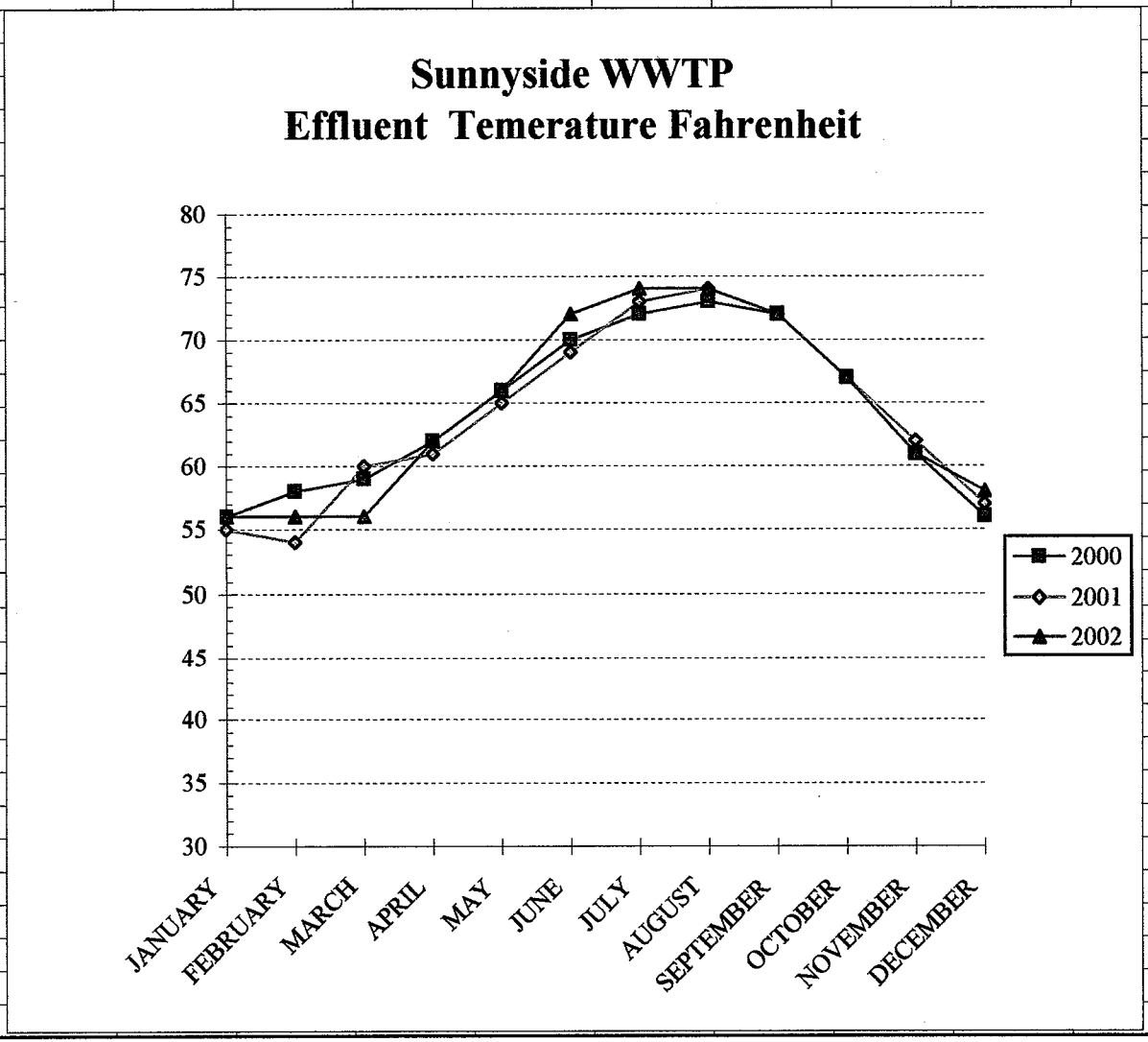
Sincerely,

Gary Potter,
Director of Public Works

Attachments

Pc: Dave Fonfara, City Manager
City Council Members
State Legislators

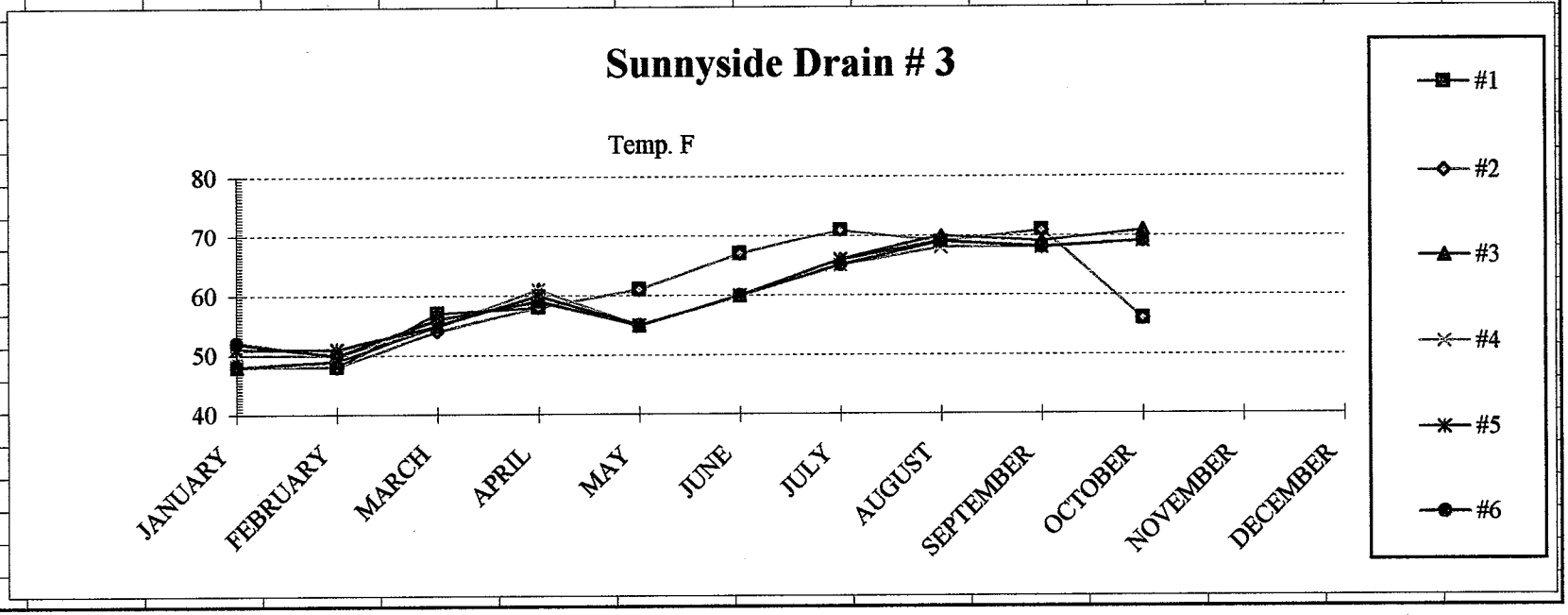
MONTH		YEAR	
	2000	2001	2002
JANUARY	56	55	56
FEBRUARY	58	54	56
MARCH	59	60	56
APRIL	62	61	62
MAY	66	65	66
JUNE	70	69	72
JULY	72	73	74
AUGUST	73	74	74
SEPTEMBER	72	72	72
OCTOBER	67	67	67
NOVEMBER	61	62	61
DECEMBER	56	57	58



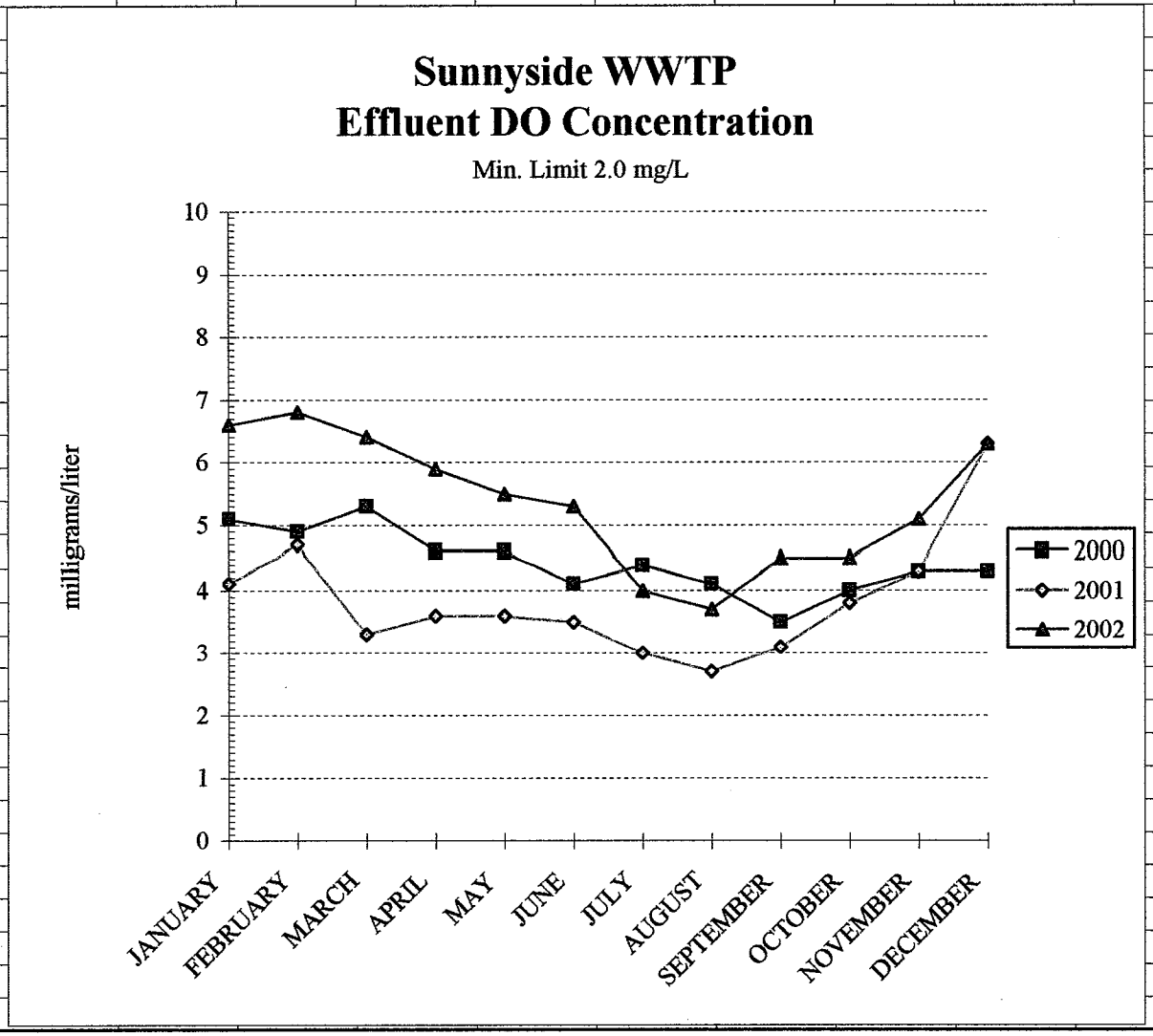
City of Sunnyside
TEMP. of Drain # 3

MONTH		YEAR	2002			
	#1	#2	#3	#4	#5	#6
JANUARY	48	48	48	50	51	52
FEBRUARY	48	48	49	50	51	50
MARCH	57	54	55	55	55	56
APRIL	58	58	61	61	60	59
MAY	61	61	55	55	55	55
JUNE	67	67	60	60	60	60
JULY	71	71	66	65	66	65
AUGUST	69	69	70	68	69	69
SEPTEMBER	71	71	69	68	68	68
OCTOBER	56	56	71	69	69	69
NOVEMBER						
DECEMBER						

#1 : YVH & Homer
#2 : Lorreta St. / Johnsons
#3 : 1st. & Zillah
#4: W Lincoln & 4th St.
#5 : South Hill & So. 1st.
#6 : Midvale Rd./ Recycling

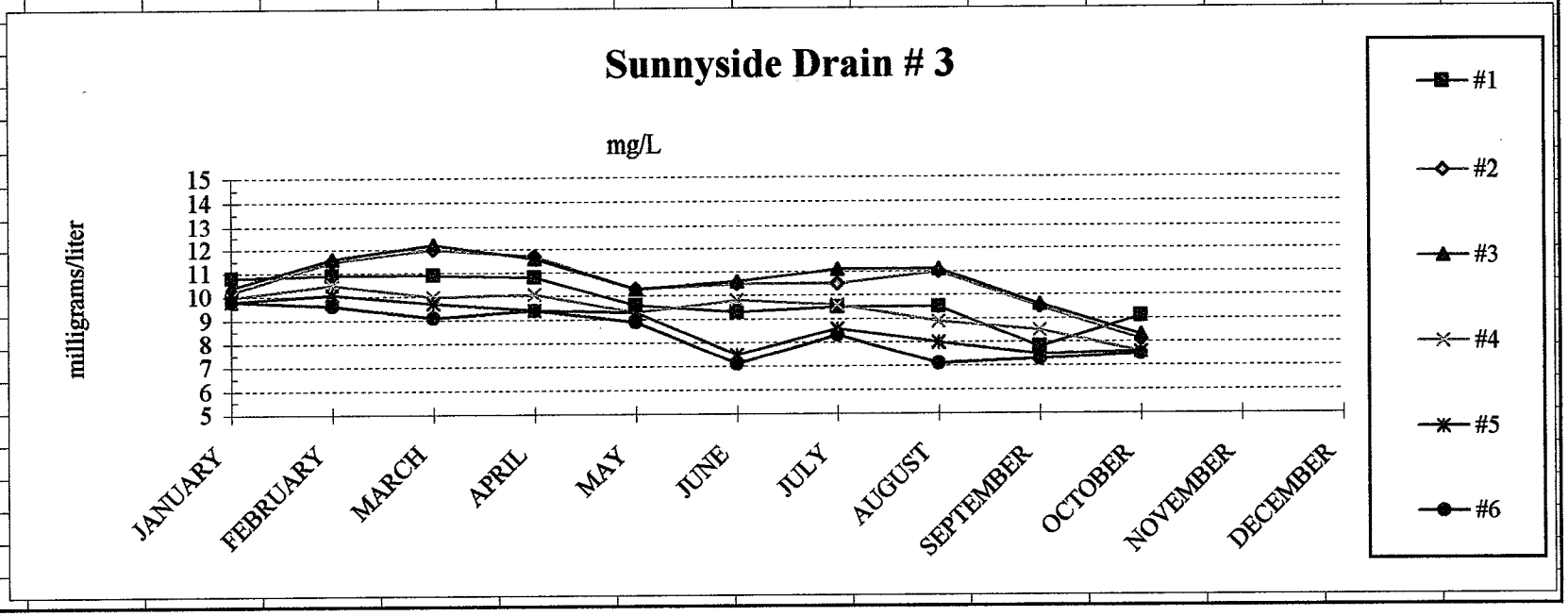


MONTH		YEAR	
	2000	2001	2002
JANUARY	5.1	4.1	6.6
FEBRUARY	4.9	4.7	6.8
MARCH	5.3	3.3	6.4
APRIL	4.6	3.6	5.9
MAY	4.6	3.6	5.5
JUNE	4.1	3.5	5.3
JULY	4.4	3.0	4.0
AUGUST	4.1	2.7	3.7
SEPTEMBER	3.5	3.1	4.5
OCTOBER	4.0	3.8	4.5
NOVEMBER	4.3	4.3	5.1
DECEMBER	4.3	6.3	6.3



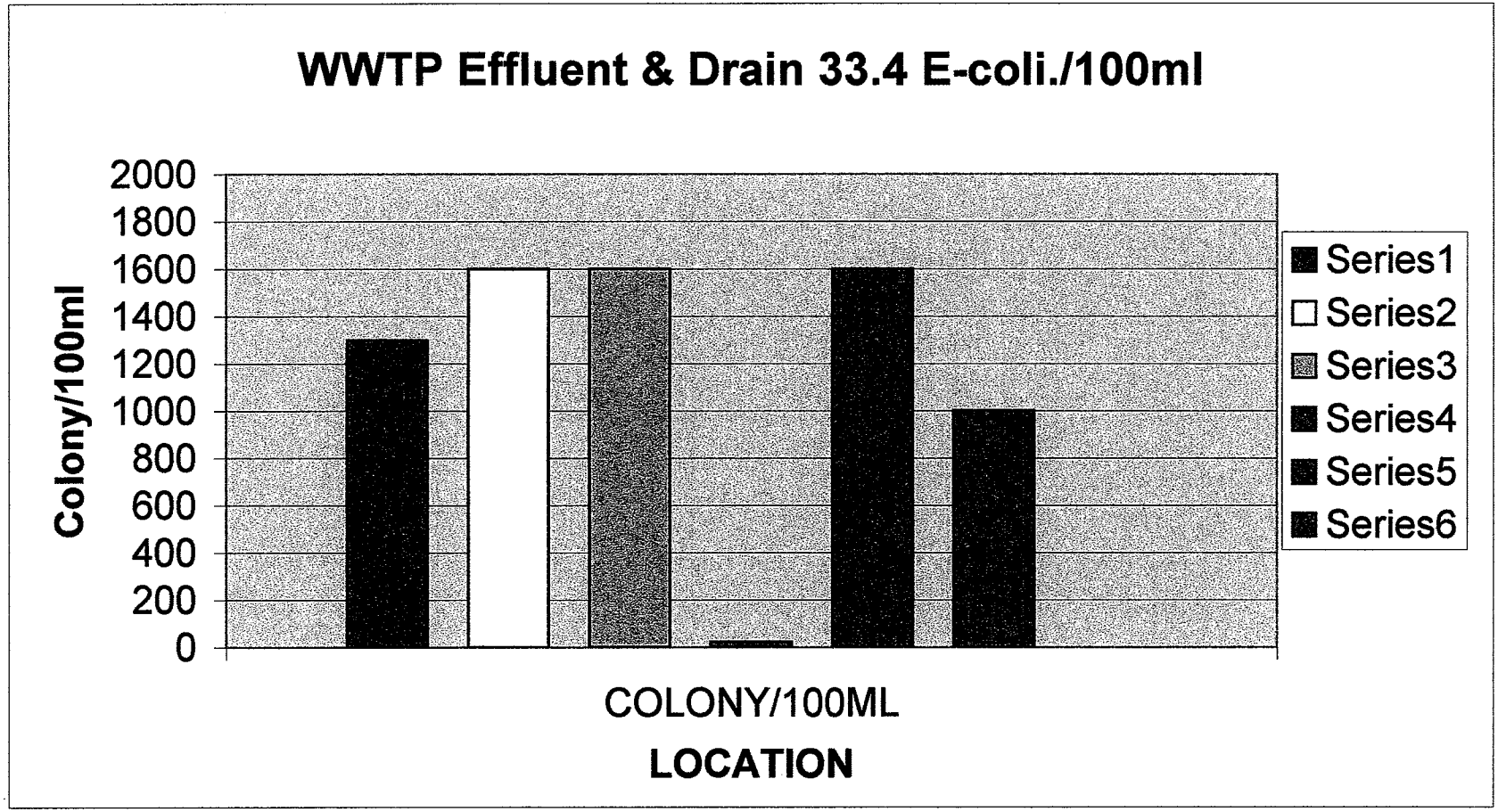
City of Sunnyside
DO of Drain # 3

MONTH		YEAR	2002				
	#1	#2	#3	#4	#5	#6	
JANUARY	10.8	10.2	10.4	10.0	9.8	9.8	#1 : YVH & Homer
FEBRUARY	10.9	11.5	11.6	10.5	10.1	9.6	#2 : Lorreta St. / Johnsons
MARCH	10.9	12	12.2	10.0	9.7	9.1	#3 : 1st. & Zillah
APRIL	10.8	11.7	11.6	10.1	9.4	9.4	#4: W Lincoln & 4th St.
MAY	9.6	10.3	10.3	9.3	9.3	8.9	#5 : South Hill & So. 1st.
JUNE	9.3	10.5	10.6	9.8	7.5	7.1	#6 : Midvale Rd./ Recycling
JULY	9.5	11	11.1	9.6	8.6	8.3	
AUGUST	9.5	11	11.1	8.9	8	7.1	
SEPTEMBER	8	9.5	9.6	8.5	7.5	7.3	
OCTOBER	9	8.1	8.3	7.6	7.6	7.5	
NOVEMBER							
DECEMBER							



Sunnyside WWTP Effluent
Drain 33.4
E-coli. Colony's /100ml

LOCATION	COLONY/100ML
#1= Lorreta St. DR3 & JD33.4	1300
#2= W. Lincoln & 4th St.	1600
#3= W. Lincoln & 4th St.	1600
#4= W.W.T.P. Effluent	22
#5= 4th & Otis	1600
#6= Midvale Rd./ Recycling	1000



KITTITAS CO COMMUNITY DEV SVCS

Kitt

Community Development Services

411 N. Ruby, Suite 2, Ellensburg, WA 98926
Telephone: (509) 962-7506 ▪ Facsimile: (509) 962-7697

March 5, 2003

Department of Ecology
Water Quality Program

MAR 07 2003

Susan Braley
Surface Water Quality Standards
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Regarding: Water Quality Standards

In reviewing the current standards vs. the new proposed standards one major component that is being misunderstood is "Natural Conditions". More importantly what is Natural Conditions? It seems that every time that question is asked there is no clear answer and yet we are trying to restore stream temperature's, establish criteria for dissolved oxygen, bacteria, ammonia, criteria to protect the quality of agricultural supply water, implement a anti-degradation plan, and restructure the way uses are designated to waterbodies for protections. All these in the theory of what natural conditions are, with the lack of adequate data.

The bottom line here is that not all the proposed regulations have credible data to support changes in the water quality standards. The Ecology review of temperature cautioned on this problem stating "Thus while serving as good general guidelines, the spawning dates used in this analysis should not be relied upon too heavily to set statewide criteria for incubation". And yet the standards for both temperature and oxygen were set with fixed dates due mainly to laboratory studies, thus not based on best available science.

The oxygen standard is overly restrictive and does not provide meaningful improvement in fish protection. The temperature standards are becoming more restrictive under the new regulations the exclusion of thermal refuges ignores an important way that fish avoid high temperature, therefore resulting in too conservative of standards. Regarding the Antidegradation implementation, under the new regulations the policy states, "human actions are not allowed to further lower the water quality" and "the department will take appropriate and definitive steps to bring the water quality back to levels which meet the water quality standards". What are these "appropriate and definitive steps"?

Under the change to the use-based standards, many eastside streams will violate the temperature standards in the summer. However, Westside streams will seldom be in violation, due to the fact that streams west of the Cascades have a smaller temperature range and cooler temperatures than that of eastside streams. The resulting factor of natural temperature is mainly due to the differences between temperature patterns of Eastern and Western Washington therefore developing a blanket set of rules for the state of Washington that will be ineffective.

In conclusion, I would like to state that all throughout these documents the technical work groups, while assisting in evaluating water quality criteria, were generally opposed to Ecology establishing such criteria. At the same I would like to re-iterate what the Washington Farm Bureau stated, "These water quality standards are increased in this new system therefore requiring farmers to improve natural streams to laboratory-defined optimal conditions. With the recommendation from the Competitiveness Council's report was to streamline regulations and was not a recommendation to add more onerous environmental regulations". Therefore, Kittitas County stands opposed to the draft regulations, in their current form, and would like to see a more effective way to capitalize on water conservation projects, and restoration and enhancement of streamside habitat with realistic and acceptable setbacks as mentioned by Kittitas County Commissioner Perry Huston, instead of applying more regulation.

Kittitas County Community Development Services

Chad Bala

Chad Bala

CC: David Taylor, Kittitas County Community Development Service Director
Board of Kittitas County Commissioners
Gregg Zempel, Kittitas County Prosecutor Attorney

Kittitas County, Washington

BOARD OF COUNTY COMMISSIONERS

District One	District Two	District Three
Max A. Golladay	Bruce Coe	Perry D. Huston

January 29, 2003

I am Perry Huston, Commissioner of District 3 on the Kittitas County Board of County Commissioners. I speak here tonight from the perspective of the elected Commissioner of District #3. The Kittitas County Board of County Commissioners has not taken an official position at this time.

We are here to talk about your revised water quality standards. A key component of those standards is temperature. The methodology applied to achieve these temperature standards was to determine what temperatures would be optimal for fish species. I wish you had been at the meeting when the results of the DOE tributary over-flights using FLIR on September 2, 2002 were unveiled by the Conservation District. Of course the data showed on that day, the surface temperatures where warmer than optimum. As that date would likely be a period of historic low flows and following the warmest period of summer I don't think anyone was surprised. "No kidding" was my response. No support in terms of historical temperature data was offered. No support in terms of the actual spawning cycle of these fish, which dictates when they might be present in the water was offered. No support in terms of whether these standards are attainable through any efforts, regardless of how onerous the regulation, was offered. RCW 90.48.010 reads in part ...to maintain the highest possible standards... I submit the word possible is not there by accident. These are just a few reasons why the credibility of these standards is being questioned as we speak. For a change, I am not going to offer up property rights or individual freedoms as the victims of poor regulation. The most vulnerable, or if you prefer the true potential victim here, is the environment itself. As one of the elected officials charged with the responsibility for the well being of my county and its' resources I fear the backlash if the regulating agencies continue on down this and many similar paths. I will better explain my remarks.

Elsewhere the Dept of Ecology is gathering information to try to increase its' ability to get the money appropriated for irrigation system improvements into the field. There is money in the bank that you can't get spent. I know for a fact there are farmers in Kittitas County who would love to be able to finance the expensive improvements that would allow them to use less water for reasons of better economic return and quite simply because it is the right thing to do. The reason many don't step forward is fear of the strings attached to their involvement in the program. These same farmers have cooperated with Kittitas County on PAM applications. They have cooperated with the conservation districts. These people will work, and work hard if they trust the stated objectives are true. The reality is a lack of credibility in one regulatory program ripples through all the others.

That the water quality standards are being discussed without a thorough discussion of all the other water programs and regulation is a prime example of compartmentalized, and as a result ineffective thinking. Rather than discuss arbitrary water temperature standards lets discuss how we can more effectively capitalize water conservation projects. Lets discuss relinquishment and identify ways in which the law can be changed so as not to discourage efforts to conserve water. Both will lead to better in-stream flows which will positively effect water temperature. Lets discuss better programs to restore and enhance streamside habitat with realistic and acceptable setbacks. A 20 foot setback with restored habitat is much better that a proposed 200 foot setback which lands you in litigation and attacks the credibility of the program. We can restore habitat. We can improve in-stream flows. I don't know how much they will reduce water temperature but it will help. I know it will accomplish more than all the regulation of which the credibility is under assault to the point it will never be effectively implemented. Right now we are only wasting resources that can be better used.

Received 1/29/2003
Pasco Public Hearing
Bev Poston - Hearing Officer

KITTITAS COUNTY COURTHOUSE · 205 WEST 5th, RM 108 · ELLENSBURG, WA 98926
(509) 962-7508 · FAX (509) 962-7679

I will close with that point. We must direct the resources we have to efforts that work. Investigation and prosecution of those who violate environmental law should be high priority. As I like to say, there is little reason for anyone to drive their D-9 through the creek, and there is no reason for anyone to steal water. Concentrate on habitat enhancement and more effective water use. Help people achieve these goals. Effective programs, which people trust and can afford to participate in, will help realize these goals. Draconian regulation will not. History has taught us that. Let's learn from our mistakes.

Sincerely,

Perry D Huston

Perry D. Huston, Vice-Chairman
District #3

KITTITAS COUNTY COURTHOUSE · 205 WEST 5th, RM 108 · ELLENSBURG, WA 98926
(509) 962-7508 · FAX (509) 962-7679

QUINCY-COLUMBIA BASIN IRRIGATION
KEITH E FRANKLIN

Quincy-Columbia Basin Irri[redacted]
Telephone (509) 787-3591 Fax (509) 787-3906
Post Office Box 188
Quincy, Washington 98848

Department of Ecology
Water Quality Program

FEB 12 2003

February 10, 2003

Susan Braley
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Comments to Ecology's Proposed Water Quality Standards for Surface Waters of Washington State

Dear Ms. Braley:

The Quincy-Columbia Basin Irrigation District submits the following comments to Ecology's proposed surface water quality standards.

Over all, the Quincy District is disappointed with the conclusions reached by Ecology within the Decision Processes for the Proposed Rules that have led to the development of the standards currently out for public review. Ecology has patterned the proposed standards around optimum protection criteria for various salmon species and other aquatic life based upon theoretical science while ignoring natural conditions and trends in the States water bodies. Over the last several years the Quincy District has invested a considerable amount of time and effort in working with Ecology to develop a workable solution to water quality issues through processes such as the "Columbia Basin Project Memorandum of Understanding", the 2002 facilitated meetings and by serving on various committees. All of that effort appears to have been in vain.

For instance, Ecology proposes to designate water uses by "Water Resource Inventory Areas" which hasn't been discussed before to the best of our recollection. Within the proposed WRIA designations associated with the Columbia Basin Project all waters will be required to meet criteria conducive to "Salmon Spawning and Rearing" or "Salmon Rearing" dependent upon the water body. It has been pointed out many times to Ecology that in the warm climate of Eastern Washington the numerical standards of such a designation cannot be met, especially within man made irrigation facilities where salmonids are not known to live. Ecology doesn't seem to be concerned that this will ultimately cost Washington State, Public Entities

and the Private Sector unnecessary expenses in the development of TMDL's to quantify higher naturally occurring conditions such as temperature, pH and dissolved oxygen levels.

In our view, Ecology has failed by developing another blanket approach to water quality standards, not much different than the old class system. Ecology had an opportunity to develop reasonable and achievable standards, but instead, elected to take a hard line approach which forces the engagement of the TMDL and Use-Attainability Analysis process to solve all of the States Water quality concerns. This is truly unfortunate.

For the record, I have attached three previously submitted letters to Ecology of which makes comment to Ecology's proposed use-based approach, protection of agriculture water supplies and the changes to the current water quality standards.

Sincerely,

Keith E. Franklin
General Manager

KEF:ka
Enclosures
cc: Tom Myrum - WSWRA

EAST COLUMBIA BASIN IRRIGATION DISTRICT
P.O. Box E – 55 North 8th Avenue
Othello, WA 99344 (509) 488-9671

SOUTH COLUMBIA BASIN IRRIGATION DISTRICT
P.O. Box 1006 – 1135 E. Hillsboro, Suite A
Pasco, WA 99301 (509) 547-1735

QUINCY-COLUMBIA BASIN IRRIGATION DISTRICT
P.O. Box 188 – USBR Building
Quincy, WA 98848 (509) 787-3591

Department of Ecology
Water Quality Program

FEB 12 2003

May 30, 2001

COPY

Mrs. Megan White, P.E., Program Manager
Water Quality Program
Department of Ecology
300 Desmond Drive
PO Box 47600
Olympia, WA 98504-7600

Re: Transition to Use Based Water Quality Standards – Columbia Basin Project

Dear Mrs. White:

The rulemaking proceedings by Ecology that are underway to bring about the transition from class based to use based water quality standards was an agenda topic at the March 9, 2001 meeting of the Oversight Panel of the Columbia Basin Project Water Quality MOU activity. Mark Hicks and Andrew Kolosseus had made presentations to the group about the proposed transition at earlier meetings. Representatives of the CBP Irrigation Districts and the Bureau of Reclamation had attended several of last winter's workshops on this rulemaking that were presented by Ecology. During the March 9 meeting Kirk Cook reported that the schedule for this rulemaking is being slowed to allow time for the completion for a Small Business Economic Effects Study.

This agenda topic was stated as follows: "Discussion of the potential and feasibility for utilization of the CBP Water Quality MOU structure and process to establish protected uses under Ecology's proposed conversion to a use based water quality standards system". The information presented at last winter's workshops included statements that the transition from class based to use based standards would take some time and that during the transition period the default would be to protect for all uses that follow from the particular class standard that is in place at the time the switch begins. Then, as time and resources allow, studies would be done to define exactly which uses would have to be protected under the new system. This type of transition period default was also one of the conclusions of the October 1999 "A Case Study Evaluating A Change to the Surface Water Quality Standards from 'Class-based' to 'Use-based' within the Columbia Basin Project Area" done by Ecology's Dewey Weaver.

This default scenario during the transition period concerns the CBP Irrigation Districts. Attached for your information are copies of February 15, 2001 letters by QCBID and ECBID to Mark Hicks commenting on the workshop presentations. Please note that the lead off comment in both letters is this concern about the default during the transition period.

The Districts understand that the switch over from class based to use based can't happen instantaneously and also be orderly. However, an extended transition period combined

with the need for complex studies to arrive at the new standard and definition of appropriate uses to be protected argues against the flexibility that is intended to result from the change in standards in the first place. To date, the prospect of better flexibility has had the CBP Irrigation Districts unopposed and open minded about the proposed switch, but this perceived transition period default question has raised concerns whether the Districts' present posture is appropriate.

At the appropriate time, possibly as the economic effects study is completed and the formal rulemaking resumes, the CBP Irrigation Districts request Ecology's consideration in utilizing the organizational framework available through the CBP Water Quality MOU as a vehicle to expedite the transition period within the Columbia Basin Project. Sections II, III. and IV. of that MOU all speak to the parties working cooperatively regarding the development of water quality standards applicable to the Project. Thank you for your consideration.

Sincerely,

Richard L. Erickson
Secretary-Manager
East Columbia Basin Irrigation District

Shannon McDaniel
Secretary-Manager
South Columbia Basin Irrigation District

Keith E. Franklin
General Manager
Quincy-Columbia Basin Irrigation District

cc: MOU Contact List

Quincy-Columbia Basin Irrigation District
Telephone (509) 787-3591 Fax (509) 787-3906
Post Office Box 188
Quincy, Washington 98848

Department of Ecology
Water Quality Program
FEB 12 2003

July 14, 2000

COPY

Mark Hicks
Washington State Dept. of Ecology
Watershed Management Section
Olympia, WA 98504-7710

Re: Proposed Surface Water Quality Criteria for the Protection of Irrigation Water Supplies

Dear Mr. Hicks:

The Board of Directors for the Quincy Irrigation District who are elected stakeholders and represent approximately 3,200 waterusers and landowners within the District have reviewed the proposed criteria designed to protect irrigation water supplies and submit the following comments.

We the Board agree with the opinion of the work group that the establishment of such criteria is unnecessary and we further believe the criteria would be a detriment rather than a help to an irrigation district and other waterusers. There is more than adequate protection for agricultural waters through the Clean Water Act and Washington State Water Quality Standards without the addition of another layer of regulations.

The Board recommends to the Department of Ecology not to adopt or further pursue additional water quality criteria to protect agricultural water supplies.

Sincerely,

Steve Morris
President of the Board

Quincy-Columbia Basin Irrigation District
Telephone (509) 787-3591 Fax (509) 787-3906
Post Office Box 188
Quincy, Washington 98848

Department of Ecology
Water Quality Program

FEB 1 2 2003

February 15, 2001

Mark Hicks
c/o WA Dept. of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Comments to Proposed Changes to Water Quality Standards

Dear Mr. Hicks:

The Quincy-Columbia Basin Irrigation District appreciates this opportunity to comment on Ecology's proposed changes to current surface water quality standards.

In regards to restructuring the water quality standards to a use-based format, the District has a concern over the transitional period from present class standards to the new use-based standard if adopted. There needs to be an interim time frame or grace period where water bodies of the State will remain in limbo until their use can be determined. The District is under the understanding that when the transition is made all water bodies within the State, where a use has not been designated, will default to a criteria with a higher standard than what the actual use of the water body should be. If a default to a higher criteria were to occur, the only mechanism available to move from the default criteria to a designated use criteria would be through a use attainability analysis. In the Districts view, this would add an unnecessary layer to the process that would be both time consuming and expensive to everyone involved. Again, Ecology needs to consider a method by which the transition can take place without triggering an unnecessary use attainability analysis.

Ecologies recommended temperature criteria changes, are still unachievably low, especially in the warmer climate areas of Eastern Washington. The new proposed changes, may be theoretically good for some fish species, but will ultimately cost Washington State, Public Entities and the Private Sector unnecessary expenses in the development of TMDLs to quantify a higher naturally occurring temperature.

For example, the Columbia River as it enters the State of Washington from Canada exceeded Ecologies temperature recommendations for rearing and

spawning Salmon, Steelhead and non-resident Cutthroat Trout in the year 2000 from about July 17th through to the 10th of October. By Ecology placing the temperature standard at such an unreasonable low number, the Columbia River is instantly out of compliance, thus triggering a TMDL process. This can be avoided if the temperature ranges where more realistic to what is occurring naturally.

The District still believes the numerical criteria Ecology is proposing is unrealistic and unachievable. Ecologies proposed criteria appears to have been developed by utilizing information obtained from studies that researched the optimum parameters conducive to aquatic life and various fish species. Most of the research appears to be laboratory generated. Rather than relying on what might be theoretically desirable, Ecology should fully examine the actual parameters that exist before any criteria is established.

The proposed criteria is more stringent in some respects than the current Class Standards and appears to be placing the same kind of a one size fits all standard for many waters of the State as has been in the past. This will once again create a conflict between what is theoretically optimum for fish and what naturally occurs which will continue to be a financial and unnecessary burden on Washington's citizens.

If you have any questions feel free to contact me at this office.

Sincerely,

Keith E. Franklin
General Manager

KEF:ka

"The Green Spot" SOUTH COLUMBIA BASIN IRRIGATION

South Columbia Basin Irrigation District

OFFICE: 1135 E. HILLSBORO, SUITE A

TELEPHONE 509/547-1735, FAX 509/547-8669 • P.O. BOX 1006 • PASCO, WASHINGTON 99301

February 27, 2003

Department of Ecology
Water Quality Program

MAR 03 2003

Ms. Susan Braley
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Ms. Braley:

The South Columbia Basin Irrigation District appreciates the opportunity to submit comments on the proposed changes to water quality standards. We have an appreciation of the time and effort that Ecology's staff has devoted to this issue as well as the commitment of financial resources that the state legislators have authorized.

Over a multi-year period, managers and staff of the Columbia Basin Project have addressed several areas of the proposed changes to the standards. These issues relate to waters conveyed through the man-made canal system of the Project and, in all practicality, do not fit into any of the categories that have been designated in the use based changes or the current classification standards.

These issues, raised by questions and statements for the duration of the drafting process, have been ignored or cast aside with little comment other than reference to a use attainability analysis process. It is imperative to our irrigation district that water quality issues are resolved. It was our hope and desire to cooperate with Ecology in the development of standards that actually address issues of waters in irrigation conveyance facilities without the needless waste of resources on studies that have a predetermined outcome.

However, it is a difficult task to provide comments from a layperson's point of view on the minutia of modifications to the standards in relation to changes in temperature requirements. While it seems that Ecology has moved toward a scientific approach that takes into account naturally occurring conditions, the conditions that occur in man-made facilities are not addressed. Though discussed at length, it seems that all the actual conditions that cannot be affected are ignored.

It is important to note that irrigation facilities are not constructed to support aquatic life. By the nature of canal and conveyance system construction and on-farm water delivery, most of the water diverted from rivers and streams flows through dead-end systems. That is, the water is put to beneficial use on farm and there is no continuity with natural systems. Why, therefore, should it be so imperative that *canals and conveyance systems* be regulated by water quality standards that are not designed to address the actual conditions that exist by their creation? Operation and maintenance activities required to ensure a reliable water supply are at direct odds with the standards, whether class system or the proposed use based.

While some off-river irrigation facilities, such as large reservoirs, have multiple purposes, applying aquatic life standards of 68 degrees for indigenous warm water species is unrealistic. Reservoirs are large heat sinks. When the sun shines, they heat up. Operational criteria will not change the temperature. Several thousand acres of water surface area at equilibrium with the ambient temperature will support aquatic life as it has for the past 50 years. We repeat: It seems a waste of time and resources to implement a use attainability analysis study. The results will be the same, regardless.

The new section designated as WAC 173-201A-260(3)(f) excludes irrigation ditches from the general exemptions described in the paragraph. This implies that irrigation ditches have more than one beneficial use when in fact they do not.

Additionally, the proposed WAC 173-201A lists "USES for all waters" in WRIA 36 as salmon spawning and rearing. Other than the Columbia River, where do salmon spawn or rear in WRIA 36? This seems to be a shotgun approach that demonstrates a lack of scientific analysis of the proposed water quality standards.

The implementation of water quality standards that beg to be challenged is not in the best interest of the District or the State of Washington. The development of standards that address conditions in terms of what can realistically be attained would seem to be a far better use of taxpayer resources and would shield irrigation water users from needless litigation.

Sincerely,

Mr. Shannon McDaniel
Secretary/Manager

SM:kgn
File: Water Quality Use Based Standards

MT 4/1/03

SUNNYSIDE VALLEY IRRIGATION DIST

Public Comme[redacted]
Proposed Revisions to the Surface [redacted]
Public comment period ends March 7, 2003

Please place comments in comment box or mail to:
Susan Braley, Department of Ecology, P.O. Box 47600, Olympia WA 98504

Department of Ecology
Water Quality Program

FEB 11 2003

This public comment pertains to (please check one):

☒ **Draft Rule** ☐ **Draft Environmental Impact Statement**

Name: Don Schramm (SVID) Sunnyside Valley Irrigation District
(RSBOJC) Roza-Sunnyside Board of Joint Control

Address: P.O. Box 239
Sunnyside, WA 98944

E-mail Address: schrammd@svid.org

Comments:

SVID/RSBOJC generally support the proposed revisions to the surface water quality standards.

SVID/RSBOJC and member landowners have worked hard to improve water quality in drains under our jurisdiction and will continue to do so in the future.

We understand "the devil is in the details". Reasonalbe application of the standards will get us to a better result faster than a hard nosed approach. We have enjoyed a positive working relationship with Ecology and hope that continues.

We feel strongly the ability to meet targets "based on the natural condition of the waterbody" must stay in the proposed revisions to the surface water quality standards as well as use attamability analysis, site-specific criteria and variances.

LLOYD HEDGLIN
[redacted]

MH 4/1/03

Susan Braley
Dept. of Ecology
PO Box 47600
Olympia, WA 98504-7600

3-4-03

Department of Ecology
Water Quality Program
MAR 07 2003

I recently received the 189 page DOE "Evaluating Standards for Protecting Aquatic Life in Washington's Surface Water Quality Standards - Temperature Standards".

In the pink 10 page introduction, to the above, -page 2, the first paragraph under Basis for Proposed Alternative states in part, "Ecology's proposal for temperature is based upon an extensive review of the technical literature and in consideration of the species and environmental conditions existing in Washington."

On page 5 of this introduction the fourth paragraph under Spawning and Rearing of Salmon, Steelhead, and Trout states in part,-- "Given the relatively small sample size, Ecology made no attempt to make the data representative with respect to the year the monitoring occurred, elevation, geography, stream temperature, stream size, stream type, or any other factor." This paragraph continues with, "Although the sites did not proportionately represent waterbodies in Washington, they did provide a broad sample of water body types." . **(This sure sounds like scientific analysis ! ??)**

During a recent phone call to Mark Hicks of the Water Quality Program, I asked how historical hatchery water temperatures influenced the proposed temperature levels.

Mark stated that, "They did not play a large role".

I suggest the data should be representative with respect to something . What better science is there than years of hatchery history in the state of Washington .

The North Toutle Hatchery on the Green River, east of Castle Rock, WA, was destroyed by the Mount St . Helens eruption in 1980. Trees , brush and plants were destroyed on thousands of acres of drainage basins that feed the Green River and it's tributaries. In spite of this massive devastation the North Toutle Hatchery was rebuilt and resumed operation in 1991.

North Toutle Hatchery water temperature records from 1991 thru 1998 for July and August; **(24 hr. average) = 64.2 degrees F.**

The following are some ***monthly*** *averages of daily maximum temps, and (maximum* daily temperatures per month) in degrees F.: Jun. 1992 = 68.83 (high = 81); July 1992 = 71.58 (high = 81); Aug. 1992 = 71.73 (high = 81); Jul. 1994 = 67.35 (high = 76); Jul. 1995 = 67.1 (high = 75); Aug. 1995 = 65.4 (high = 74); Jul.1996 = 67.94 (high = 74); Aug. 1996 = 66.61 (high = 72); Jul. 1997 = 69.00 (high = 76); Aug. 1997 = 68.29 (high = 74); Jul. 1998 = 66.71 (high = 81); Aug.1998 = 68.39 (high = 75)

7DADMax temperatures during this period run as high as 78.4 degrees F.

The North Toutle Hatchery is a federally financed hatchery operated by the Washington State Dept. of Fish and Wildlife. .They raise spring and fall chinook & coho salmon, steelhead and rainbow trout and have a good return record for all species raised.

Other S. W. Washington hatchery 7DADMax temperatures in degrees F. between 1994 & 1998

Beaver Creek	73.7
Elochoman Creek	71.43
Fallert Creek	68
Kalama Falls	69.43

I think studies that set criteria that take away tree farm families rights to harvest trees they have planted and cared for on tree farms they have paid taxes on for up to 100 years or more, should be based on true science. What better science is there than years of historical hatchery data.

The proposed changes to the temperature criteria lowered the required temperatures based on poor science instead of raising the temperatures to the proven allowable level shown by hatchery history.

Lloyd S. Hedglin
3312 Coal Creek Road
Longview, WA 98632

GRAND COULEE PROJECT
Electricity From [redacted]

GRAND COULEE PROJECT HYDROELECTRIC AUTHORITY

32 "C" Street NW, Room 305

P.O. Box 219, Ephrata, WA 98823-0219
509/754-2227 Fax: 509/754-2425

February 10, 2003

Department of Ecology
Water Quality Program

FEB 12 2003

Susan Braley
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Comments to Ecology's Proposed Water Quality Standards for Surface Waters of Washington State

Dear Ms. Braley:

Please reconsider applicable temperature, pH and dissolved oxygen level standards for waters within regulated reclamation irrigation storage, conveyance and drainage facilities. As proposed, a cold water salmonid standard is not reasonably achievable and will add to the economic depression of the farm economy. State, local government, and private resources will be needlessly consumed (wasted) in a load allocation process with eventual outcome showing ambient and/or natural conditions control.

The irrigation community provided many suggestions and alternatives for establishing appropriate water quality standards in Ecology's recent 2002 facilitated meetings. Review and incorporation of these suggestions and alternatives will result in reasonable and achievable water quality standards for regulated reclamation facilities without the additional financial burden of use attainability analyses.

Prudent use of staff and financial resources is a worthy goal in all working sectors – public and private.

Sincerely,

Merle R. Gibbens
Secretary-Manager

Copy to:
D. Erickson, ECBID
K. Franklin, Q-CBID
S. McDaniel, SCBID
T. Myrum, WSWRA

MH 3/11/03

CITY OF ELLENSBURG
RICK BOLLINGER

CITY OF ELLENSBURG
Rick Bollinger - Assistant Public Works Director
414 North Main Street; Ellensburg, WA 98926
PH: (509) 962-7133 FAX: (509) 962-7127

Department of Ecology
Water Quality Program
MAR 03 2003

February 27, 2003

Susan Braley
Department of Ecology
PO Box 47600
Olympia WA 98504-7600

RE: Public Comment on New Water Quality Standards

Dear Susan,

After the City's initial evaluation of the proposed New Water Quality Standards, it appears that the City of Ellensburg Wastewater Treatment Plant may not be able to achieve the requirements for both Dissolved Oxygen and Temperature. It is highly likely that numerous other small Cities in Central Washington may also be unable to meet these requirements.

Due to the short time frame allowed for comment on the rules the City will not be able to complete a technical review of the purpose of establishing cost to comply. This exercise in and of itself will require us to secure consultant assistance to develop strategies to comply and identify technologies necessary to comply. There is no funding currently available to complete this review, and without this level of analysis it is impossible to quantify the rule impact on our plant.

The compliance schedule for meeting the new water quality standards is restrictive. Due to both the financial commitment and the time required to complete a project of this magnitude, a more manageable schedule should be developed.

Based upon our admittedly limited study, it appears that, the technology appropriate for use by Treatment Plants to provide the required temperature reduction is not well developed at this point. Therefore, it would not be in the best interest of any small city to be required to purchase and install expensive unproven technology.

A compliance schedule that would allow Treatment Plants to incorporate retrofitting their facilities during the next scheduled major plant upgrade would help ease the immediate financial impact to both the utilities and there customers.

The proposal on mixing zones indicates that mixing zones will only be allowed after installation of AKART. With the standard established to prevent chronic effects of temperature and

dissolved oxygen on fish populations, mixing zones should be allowed to the full chronic mixing zone size.

The proposed Dissolved Oxygen Criteria are based on a 90-day Average of Daily Minimums. The Temperature Criteria are based on a 7-day Average of Daily Maximums. The Ecology River monitoring web site does not provide enough data points to enable a City to determine what these minimums and maximums might be. Has sufficient monitoring been performed to establish these guidelines? It appears that the ambient river temperature may exceed the minimums in the summer and the requiring of maximum increases in temperature is not practical for winter months.

In summary, the City of Ellensburg feels that the impact of the new standards for temperature and dissolved oxygen on small cities, especially those in Central Washington, has not been adequately investigated. More study is needed to determine whether the technologies exist for these standards to be met by cities and whether the cost and time required to acquire them, if available, has been adequately factored into the proposed requirements and time lines. We ask that these issues be addressed before putting these standards into effect.

Sincerely,

Rick Bollinger

Rick Bollinger
Assistant Public Works Director

Cc: Ted Barkley, City Manager

EAST COLUMBIA BASIN IRR E COLUMBIA BASIN IRRIGATION DISTRICT
RICHARD ERICKSON

55 North 8th
P.O. Box E
OTHELLO, WASHINGTON 99344
Phone 509 488 9671
Fax 509 488 6433

March 5, 2003

Department of Ecology
Water Quality Program

MAR 06 2003

Ms. Susan Braley
Washington Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

RE: Revisions to Washington's surface water quality standards

Dear Ms. Braley:

Thank you for the opportunity to comment on the proposed revisions to Washington's surface water quality standards. The East District has followed the development of these proposed changes closely since at least 1998. This interest has been driven by the fact that several Columbia Basin Project irrigation and drainage waterways appear on Ecology's 303(d) lists of threatened or impaired waters. These listed waterways are operated and maintained by the East, Quincy and/or South Columbia Basin Irrigation Districts and/or the U.S. Bureau of Reclamation.

During the years these standards revisions have been developing the District has interacted with Ecology and EPA in many ways. These include, but are not limited to:

- Cooperation with Ecology in researching "A Case Study Evaluating A Change to the Surface Water Quality Standards from 'Class-based' to 'Use-based' within the Columbia Basin Project Area" which was published in October 1999.

- The development in 1999 and the ongoing operation of the "Memorandum of Understanding And Agreement between the East, Quincy and South Columbia Basin Irrigation Districts and the U.S. Bureau of Reclamation and the U.S. Environmental Protection Agency and the State of Washington Department of Ecology".

- A 2001-2002 facilitated discussion process between Ecology and numerous economic sector water and land using organizations (the so-called "regulated community") which was intended to work through identified difficulties of the standards revisions as they were proposed by Ecology at that time.

- Numerous conversations, letters and meetings with Mark Hicks, Megan White and other Ecology officials having policy roles in the development of the proposed revisions.

I have listed the above activities to emphasize that the District has gained some expertise regarding the proposed revisions and that we have an understanding of how they are likely to affect the Columbia Basin Project if and when they are implemented.

It is the opinion of the District that the revisions, as presently proposed, will not solve water quality problems identified by Ecology within the Columbia Basin Project any better than

the regulations presently in place. **The District therefore recommends that Ecology not adopt the proposed revisions until such time that the proposal incorporates features that will solve CBP water quality problems**. The District understands that Ecology has labored long and hard in developing these proposed revisions, has accepted input from many diverse interest groups and may be at the point where adoption now is inevitable. However, since the District is more directly impacted than most of the interest groups providing input, **the District believes that further work is necessary before adoption**. Our reasons follow.

Most, if not all, of the 303(d) listings of CBP irrigation and drainage waterways are the result of them being classed as A, AA or Lake pursuant to the present class-based standards system. These designations resulted from the default mechanisms of the present regulations. Only a few waterways were specifically studied and those ended up class B which is probably much more appropriate. Ecology has continually argued that an advantage of a use-based system is that each water body's protected uses can be customized to fit the actual uses and situation. However, Ecology also states that, at its implementation, the proposed use-based system will require the protection of the same uses mandated by the class-based systems. The District sees this as just another default mechanism similar to the present situation which will necessitate a continued requirement to protect uses which are not appropriate for irrigation and drainage waterways located in semi-arid and hot eastern Washington. **The proposed standards need to be modified to move automatically toward protection for only the appropriate uses at the time of implementation of the use-based system**.

Ecology officials explain that the mechanism to eliminate the requirement to protect for uses which are not appropriate for a given water body will be through the preparation and approval of a use attainability analysis. To the uninformed this may sound logical. However, there is little, if any, evidence of successful, approved UAAs through the entire history of the Clean Water Act anywhere in the entire United States. There is no history of successful, approved UAAs in Washington. Also, UAA approval is not an authority delegated from federal to state government which means approval is by EPA. Ecology appears to be relying on a statutory procedure that, in practical reality, does not yet exist and over the outcome of which it has no final control. Because of all this, there is no way to estimate the magnitude of burden and expense to the State, local governments, businesses and private citizens that might result from Ecology's planned reliance on UAAs. **The District recommends that the proposed standards not be adopted until such time that a well-defined, state controlled procedure for carrying out reasonably achievable UAAs is available**.

The proposed revisions add standards for the protection of irrigation water from degradation. The planning activity for those standards included an appointed advisory panel which included irrigation district representation. That advisory panel concluded that additional standards for the specific protection of irrigation is not especially necessary. This District has requirements in its rules and regulations that prohibit individual water users from degrading the quality of water returning to the District's waterways to an extent that makes the water unusable by another irrigator. These provisions are used successfully several times each irrigation season to solve intra-district water quality problems. At least in this District, additional outside authority does not appear to be necessary. It is somewhat puzzling to the District and probably duplicitous of Ecology to establish irrigation water quality standards but at the same time be unwilling to establish uses or categories of standards more appropriate for irrigation and

drainage waterways (i.e. warmer temperature and higher dissolved oxygen parameters) for semi-arid, hot eastern Washington. **The proposed revisions to the water quality standards should be modified to include categories for irrigation and drainage waterways** (both manmade and pre-project ephemeral waterways incorporated into the irrigation/drainage system) **consistent with the climate of eastern Washington**.

The temperature and dissolved oxygen standards contained in the current proposal are a step in a logical direction but cannot be complied with in much of semi-arid, hot eastern Washington. The 7 day average of daily maximum metric for temperature is an improvement. The District recognizes that by setting this maximum at from 13°C to 20°C it is higher than what EPA or others may recommend. The District appreciates this movement by Ecology. However, for many eastern Washington waterways this standard and duration will not be achievable. For dissolved oxygen the metric of 90 day average of daily minimums with levels of 7.0 to 9.5 mg/l may be even a larger step toward realistic conditions than what is proposed for temperature. Again, however, much of eastern Washington will miss that mark. These proposed standards will result in many needless 303(d) listings requiring undoable UAAs or expensive and burdensome TMDLs. **The proposed revisions for temperature and dissolved oxygen need to be further modified to better fit the climate of semi-arid, hot eastern Washington OR the proposed rule needs to incorporate procedures and mechanisms, other than UAAs or TMDLs, exempting these water bodies from the 303(d) list**.

One difficulty of the proposed use-based system identified in Ecology's CBP Case Study which was referenced earlier is where to draw the boundaries between various uses in situations such as the CBP which has a web of interconnected waterways. The District understands the general concept to be that the management mandate will be toward protecting the most sensitive use. This can have the effect of a sensitive use at one location rippling upstream and downstream to other waterways somehow connected to that location. An example would be a re-regulating or re-capture reservoir that supports fishing and swimming. Such facilities commonly have canals and/or drains providing inflow and they outflow to a canal. As presently envisioned this means those canals and drains entering and leaving that reservoir may also need to be managed to protect fishing and swimming and taken to the extreme the fishing and swimming standard could also then apply to branches and tributaries of those canals and drains. **The proposed rule needs to be revised to clearly define, to the greatest extent possible, how boundaries between protected uses are to be established**.

Again, thank you for the opportunity to comment. The District is willing to continue working constructively with Ecology to develop reasonably achievable water quality standards.

Sincerely,

Richard L. Erickson
Secretary-Manager

RLE:jd

cc: QCBID
SCBID
GCPHA
USBR

WA 4/1/03

DON & JANET HOWARD

1420 Tucannon Road
Pomeroy, WA 99347
March 7, 2003

Department of Ecology
Water Quality Program

MAR 07 2003

Susan Braley
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Ms. Braley:

We oppose the water quality standards that is being proposed by the Department of Ecology. The proposed standards cannot be met and will potentially put state ranchers and farmers out of business.

Ranchers and farmers cannot continue to withstand regulatory hits and still stay in business and be competitive in the world market place.

We oppose the DOE making rules that even Mother Nature cannot abide by. The water quality standards are not based upon the best available science.

We want to be able to survive on our ranch. With the new DOE water quality rules, it will make it very hard to do.

Sincerely,

Don & Janet Howard

Don and Janet Howard

ltf 4/1/03

RANDY BALDREE

The following comment and questions are offered for Department of Ecology's public input session regarding revision of "Water Quality Standards for Surface Waters of the State of Washington, 173-201-A WAC".

Location: Spokane Falls Community College, Spokane, WA
Date: January 28, 2003

Comment Regarding WRIA 34 Aquatic Life Criteria:

Recent measurements of surface water quality in Whitman County (WRIA 34) have shown that during certain times of the year, prominent streams within the county do violate the proposed standards of the "Use" based system. Violations of maximum water temperature and minimum dissolved oxygen have occurred, and will no doubt continue to occur, during August when flows are exceedingly low and the ambient temperature quite hot. As a point of information I would note that on page 80 of the proposed new language of WAC 173-201A, all surface waters in WRIA 34 have been given a use rating of "Salmon Spawning and Rearing", with the exception of the Palouse River from it's mouth to Colfax, which was rated for "Salmon Rearing Only". I am puzzled by this use rating due to the natural barrier of Palouse Falls, which prevents movement of any fish (anadromous or otherwise) up river from that point. At the very least one would assume that the aquatic life use criteria in WRIA 34 should be based on non-anadromous trout, and perhaps only on indigenous warm water species. Both of these aquatic life designations have lower water quality criteria than that of anadromous species.

Specific questions:

1. What is the process for questioning the assignment of a use criteria on a given water body?
2. What is Ecology's monitoring process for compliance with surface water quality standards under the use based system, and how will Ecology handle situations within a WRIA that fail to meet the use standards for aquatic life? In other words, how would Ecology determine the causes of the failure and how would responsibility and liability be assigned for such a failure?
3. What will be the likely impacts of enforcement actions on rural communities, towns, cities, businesses, and farms?

Randy Baldree
8232 South Palouse River Road
Colfax, WA 99111
509-397-6290
baldree@colfax.com

Received 1/28/2003
Spokane Public Hearing.
Bev Poston - Hearings Officer

MID-COLUMBIA PUDS
STEVEN HAYS, ROBERT W. CLUBB,

[redacted]

4/1/03

MID-COLUMBIA PUDs
CHELAN, DOUGLAS, GRANT Public Utility Districts
Wenatchee – East Wenatchee – Ephrata, WA
Upper Central Washington State
233-549-4370

Wells Dam
Rocky Reach Dam
Rock Island Dam
Wanapum Dam
Priest Rapids Dam

Department of Ecology
Water Quality Program
MAR 0 7 2003

March 7, 2003

Ms. Susan Braley
Washington Department of Ecology
Water Quality Program
Post Office Box 47600
Olympia, WA 98504-7600

RE: Proposed Rule Making - Amendments to Chapter 173-201A
Water Quality Standards for Surface Waters of the State of Washington

Dear Ms Braley,

The Mid-Columbia PUD's own and operate five hydroelectric projects on the mainstem Columbia River located in North Central Washington State. These projects are Wells Dam owned by Douglas County PUD, Rocky Reach and Rock Island Dams owned by Chelan County PUD, and Wanapum and Priest Rapids Dams owned by Grant County PUD.

Collectively, the hydroelectric projects of the Mid-Columbia PUD's have a capacity of approximately 5000 MW of generation. The projects currently provide electricity to well over 7 million customers in the Northwest through existing Power Sales Contracts with regional utilities, including Puget Sound Energy, PacifiCorp, Portland General Electric, Avista, Cowlitz PUD, Okanogan PUD, Forest Grove Light & Power, City of Milton-Freewater, Eugene Water & Electric, Seattle City Light, Tacoma Power, Kittitas PUD, and McMinnville Water & Light.

We would like to compliment the WDOE for the open and collaborative process that was followed while working through revisions to the water quality standards over the past many months. While some concerns remain in certain critical areas, we believe that many improvements to the proposed amendments were the result of the process that was followed. An example of the improvements achieved through this open and collaborative process is evident in the resulting proposed amendments regarding Total Dissolved Gas (TDG).

The Mid-Columbia PUD's appreciate the opportunity to comment on the Proposed Rule making. We would like to meet with you and others within the Department of Ecology to discuss our comments in more detail or provide additional explanation as needed. Please contact us if we can be of assistance.

Sincerely,

Steven Hays
Fish and Wildlife Biologist – Relicensing
Public Utility District No. 1 of Chelan County

Robert W. Clubb, Ph.D.
Chief of Environment and Regulatory Services
Public Utility District No. 1 of Douglas County

Clifford R. Sears
Regulatory Compliance Coordinator
Public Utility District No. 2 of Grant County

COMMENTS OF THE MID-COLUMBIA PUD'S
TO WASHINGTON DEPT OF ECOLOGY PROPOSED RULE MAKING

RE: AMENDMENTS TO CHAPTER 173-201A
WATER QUALITY STANDARDS FOR SURFACE WATERS
OF THE STATE OF WASHINGTON

1. Use-Based Standards

The Mid-Columbia PUDs understand Ecology's reasons for converting from a Class-Based system of WQS to a Use-Based system. However, what is lost in the current revised WQS is the ability to distinguish between waterbody types based on their individual physical characteristics. Under the Class-Based system, a number of beneficial uses were found in more than one class and the waterbodies were assigned classes that took into account the physical capabilities of the waterbody. Thus, a waterbody or segment that lay in a geographic region that naturally resulted in warm summer water temperatures was assigned to a class that recognized this physical limitation, even though the waterbody supported salmon, steelhead and trout spawning and rearing. As proposed in the revised WQS, the same waterbody would be classified by these uses (salmon, steelhead and trout spawning and rearing) and would be assigned different numeric criteria, without taking into account the physical limitations of the waterbody. The same dilemma exists for streams with high sediment loads, such as those fed by glacial melt and which pass through naturally erosive land forms.

Under the revised water quality standards, the water temperature criteria for the Columbia River above Priest Rapids Dam will change from 18°C to 16°C, but the site-specific criterion that applies from the mouth to Priest Rapids Dam will remain at 20°C. The scientific basis is fully developed to establish site-specific temperature criteria of 20°C for the segment of the Columbia River above Priest Rapids Dam to Chief Joseph Dam, based on the EPA's RB10 model and other, more site-specific models, of the waterbody's natural temperature response to climatic conditions. However, the revised water quality standards would require the cumbersome process described in WAC 173-201A-430.

Recommendation:
The Mid-Columbia PUDs recommend that the criteria notes in Table 602 be modified to state "From Washington-Oregon border (river mile 309.3) to Chief Joseph Dam (river mile 545.0). Temperature shall not exceed 20.0°C....". The Department should retain flexibility to establish additional Criteria Notes in Table 602 to reflect the natural limitations of a particular waterbody.

2. Definitions – Natural Conditions and Irreversible Human Development.

The acknowledgement of irreversible changes to the landscape from permanent infrastructure and major developments (for example: cities, dams, highway systems,

airports) should be treated in the same manner as natural conditions or background levels when considering whether a surface water meets water quality standards. Particularly in cases such as water temperature, where the source of the "pollutant" is from natural climatic conditions and permanent human-caused landscape changes affect the response of the waterbody to this natural source of "pollutant", the establishment of site-specific criteria should be based on the temperatures attainable with the permanent infrastructure in place. The recognition of "site-potential" in the case of thermal loading and water temperature was recommended by the technical advisors to the EPA Region 10's Temperature Criteria Guidance development. The "site-potential" is intended to be the water temperature regime that is attainable, after taking into account the both natural determinants of thermal load and irreversible human effects. The existence of large dams, particularly on river systems extensively developed for multiple purposes (flood control, hydroelectric generation, navigation, agriculture, etc.), such as the Columbia River, should be recognized as an irreversible human condition because infrastructure of this magnitude is not going to be removed in the foreseeable future because of the wide range of societal benefits that it provides the Northwest region. The Federal Advisory Committee on the Total Daily Maximum Load (TMDL) Program (July 1998) recommended that the irreversible effects of dams be treated as part of the environmental background and given a background allocation when preparing a TMDL.

Recommendation:
One approach is simply to establish irreversible human development in the definition of natural or background conditions in WAC 173-201A-020 subject to an approved management plan, permit or Order.

Alternatively, the Department could establish guidelines for adopting criteria based on the physical capabilities of the waterbody in WAC 173-201A-260 (Other water quality criteria and applications). The ultimate location for these site-specific criteria could be in the Criteria Notes in Table 602.

3. Ecology's Use Of Optimal Criteria Is Unnecessary And Inappropriate. As a Result, Ecology Must Develop Additional Tools To Allow Flexible Implementation.

Because of the vulnerability of salmonid populations that have been listed as threatened and endangered, Ecology assumes that optimal temperatures are necessary to protect the various life stages of these populations. This assumption is unwarranted.

Although Ecology's literature reviews may point to evidence that water temperatures that are higher than optimal may cause certain adverse chronic and sub-lethal effects in some specimens, it does not show that these temperatures, particularly if they occur for only brief periods, have significant adverse effects on salmonid *populations*. To the contrary, the evidence produced through facilitated workshops points out that many streams in the Pacific Northwest would naturally be warmer than the recommended criteria. Given this, and given the natural daily, seasonal, and annual fluctuations in stream temperatures, it

would be unlikely if salmonid populations had evolved to require, throughout their entire life cycle, "optimal" temperatures that are colder than natural stream temperatures.

Ecology's obligation under Section 303 of the Clean Water Act is to establish water quality standards that take into consideration "their use and value" for a wide range of beneficial uses including "public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, and other purposes." Moreover, under EPA's anti-degradation policy Ecology is obligated to maintain and protect existing beneficial uses. By adopting optimal temperature criteria, rather than protective criteria that take into consideration all existing beneficial uses, Ecology would abandon any effort to meet this obligation. Moreover, the effort to reduce maximum stream temperatures from protective levels to optimal levels, even where it is possible or feasible, would likely provide few or no benefits to salmonid populations at a cost that could be devastating to the economy of the Pacific Northwest

Recommendation:
The Mid-Columbia PUDs therefore urge Ecology to reconsider the temperature criteria and replace them with criteria that are **protective** and take into consideration impacts on all other beneficial uses of State waters. Ecology has not made a persuasive case that "optimal" temperatures are essential to the protection and recovery of these populations.

In the alternative, if "optimal" conditions are to be retained, Ecology should pursue practical mechanisms for addressing inappropriate numeric criteria written into the state's water quality standards. Two important mechanisms that are included in the currently approved temperature standards for other Northwest states are the concepts of "non-measurable" temperature effects and long-term temperature management plans. The provision for "non-measurable" effects allows insignificant anthropogenic warming (*e.g.*, 0.3 C.) even when the stream exceeds the numeric criterion. This is appropriate because insignificant warming by definition does not pose a threat to salmonid populations.

a. Additional Tools Include The Use Of Temperature Management Plans Consistent With Other Northwest States To Address Implementation Of Applicable Numeric Criteria For Temperature.

The proposed rule identifies three existing mechanisms for addressing circumstances in which the recommended criteria are inappropriate: (1) use of a narrative criterion that provides that the natural background temperature is the applicable criterion if that temperature exceeds the numeric criterion; (2) adoption of a site-specific criterion that protects salmonid populations and other designated uses; and (3) adoption of a site-specific criterion that supports a marginal or limited use based on a use attainability analysis. As proposed, none of these mechanisms, however, provide a practicable means of allowing anthropogenic warming if the numeric criteria are inappropriately stringent. Setting the criterion at a higher, natural temperature does not allow any anthropogenic warming. In addition, the process outlined by Ecology for setting a site-specific criterion is unnecessarily burdensome. Conceivably, it could require an amendment of the state or tribe's water quality standards, which in turn may require EPA approval and possible

consultation under section 7 of the Endangered Species Act. These are not practicable means for addressing inappropriate numeric criteria for any significant number of streams. Indeed, it is our experience that the state has few resources to devote to site-specific criteria even in the context of hydroelectric relicensing proceedings, in which there is generally a wealth of data concerning water quality and salmonid populations.

Ecology has made strides at addressing flexible provisions to date over the previous draft rule. While we are respectful of Ecology's open and collaborative process, Ecology itself has developed the temperature management plan concept as a principal strategy to implement the Columbia River Temperature TMDL. The temperature management plan proposed in the draft Summary Implementation Strategy is modeled after the State of Oregon's water quality regulations and the implementation planning phase is itself an open, collaborative process.[1] The department's suggestion to use temperature management plans is a practicable mechanism for adjusting the criteria to specific streams as local conditions warrant. Such mechanisms are all the more important if the numeric criteria are likely to be colder than what the watershed can provide.

The proposed regulations should be revised to provide a regulatory mechanism that will support a provision for long-term temperature management plans. Similar regulations have been approved by EPA when the numeric criteria cannot feasibly be met. Temperature management plans also protect salmonids and other designated uses when numeric temperature criteria are inappropriate for a specific stream segment.

Recommendation:
The first sentence in WAC 173-201A-200 should be revised to read:
"<u>These aquatic life uses and temperature criteria are intended to apply except where there is an approved management plan or other site specific standard....</u>"

In addition, add the following new section to the Water Quality Standards. This section should be based on the Oregon regulations cited above, which have been approved by EPA, or other similar language.

NEW SECTION WAC 173-201A-460 Temperature Management Plans.

(1) In any waterbody identified by the department as exceeding the relevant numeric temperature criteria and designated as water quality limited under Section 303(d) of the Clean Water Act, anthropogenic sources are required to develop and implement a surface water temperature management plan which describes the best management practices, measures, and/or control technologies which will be used to reverse the warming trend of the basin, watershed, or stream segment identified as water quality limited for temperature. The department may determine that a plan is not necessary for a particular stream segment or segments within a water-quality limited basin based on the contribution of the segment(s) to the temperature problem.

(2) Sources shall continue to maintain and improve, if necessary, the surface water temperature management plan in order to maintain the cooling trend

[1] OAR 340-41-026(3)(a)(D)

until the numeric criterion is achieved or until the department has determined that all feasible steps have been taken to meet the criterion and that the designated beneficial uses are not being adversely impacted. In this latter situation, the temperature achieved after all feasible steps have been taken will be the temperature criterion for the surface waters covered by the applicable management plan.

(3) The determination that all feasible steps have been taken will be based on, but not limited to, a site specific balance of the following criteria: protection of beneficial uses; appropriateness to local conditions; use of best treatment technologies or management practices or measures; and cost of compliance.

(4) Once the numeric criterion is achieved or the department has determined that all feasible steps have been taken, sources shall continue to implement the practices or measures described in the surface water temperature management plan in order to continually achieve the temperature criterion, unless the department indicates that such steps are no longer required.

(5) A source (including but not limited to permitted point sources, individual landowners and land managers) in compliance with the department approved surface water temperature management plan shall not be deemed to be causing or contributing to a violation of the numeric criterion if the surface water temperature exceeds the criterion.

b. Additional Tools Should Include Incorporating The Definition Of "Non-Measurable Effect" Used In The Antidegradation Policy.

WAC 173-201A-320(2) defines a measurable change in temperature, for purposes of conducting a Tier II antidegradation review, when a new or expanded action results in an increase in water temperature of 0.3°C or more at a point outside of the source area. We support this approach of protecting existing water quality conditions because we believe that 0.3°C is at the limit of what is measurable for an individual source.

Conversely, we do not understand the basis for a separate requirement in WAC 173-201A-200(1)(c)(i) prohibiting all human activities from having more than cumulative increase of 0.3°C when the water quality is naturally warmer than the numeric standard. This appears to mean that an undetectable increment is to be regulated and the mechanism for doing so is unclear.

We also believe that the proposed standard in Section WAC 173-201A-200(1)(c)(i) restricting all human actions considered cumulatively not to increase the 7-DADM to more than 0.3°C (0.54°f) is inappropriate for large rivers like the Columbia and Snake rivers. In this regard, the 0.3°C allowable increase is equally applied to all rivers and streams, both great and small. It makes little sense to hold the sum of the effects of human activities to the same level of increase for a stream five miles in length as a river 500 miles in length. On large water bodies, segments of reasonable length should be identified and the 0.3°C increase allowed within each segment.

The allowable increase must also be broad enough to measure accurately and precisely to distinguish between human-caused effects and natural variation. For example, the 0.3°C proposed limitation on cumulative increase in temperature is too small to be reliably measured and evaluated. The proposed 0.3°C increase in temperature is at the limits of measurement error, but when apportioned between a number of human activities the resultant proportions are undetectable.

Recommendation:
The Mid-Columbia PUDs support the adoption of a "non-measurable" effects consistent with Section 173-201A-320(2) applicable to new or expanded actions.
WAC 173-201A-200(1)(c)(i) should be revised to read:

> When a waterbody's temperature is warmer than the criteria in table 200(1)(c) and the condition is due to natural conditions and/or existing human structural changes that can not be effectively remedied, then no new or expanded action will be allowed that increases water temperature of 0.3°C or more measured at some point outside of the source area except as provided WAC 173-201A-320.

Alternatively, the special temperature conditions for the Columbia and Snake rivers should be retained because it recognizes the existence of the hydropower system, permits up to 0.3°C from each source, and provides reasonable geographic areas that define the applicable "waterbody."

4. When The Water Temperature Is Cooler Than The Numeric Criteria, The Incremental Temperature Increase Allowed For Individual Point Sources Should Not Be Greater Than The Increment Allowed For Dams.

In WAC 173-201A-200(c)(ii)(A), incremental temperature increases from individual point sources are allowed up to 28/(T+5) in fresh waters. The same logic should be applied to individual nonpoint sources, such as hydroelectric dams. See 33 USC 1314(f). There is no biological basis for placing more stringent requirements on individual nonpoint sources than are placed on point source discharges. Also, the 0.3°C allowance above the criteria for human actions should still apply.

Recommendation:
Revise WAC 173-201A-200(1)(c)(ii) to read as follows:

> When the natural condition of the water body is cooler than the criteria in the table, the allowable rate of warming up to, but not exceeding, the numeric criteria <u>by more than 0.3°C</u> from human actions are restricted as follows:
>
> (A) Incremental temperature increases resulting from individual point source activities <u>or hydroelectric dams,</u> must not, at any time, exceed 28/(T+5) for fresh water ....."

(B) The temperature increase resulting from the combined effect of all nonpoint source activities in the waterbody, must not, at any time, exceed 2.8C (5.04° F.) outside designated mixing zones.

5. The Antidegradation Tier II Review Should Not Automatically Require Review For License Renewals.

WAC 173-201A-320(2) provides that the public interest test applies to new or expanded actions when the resulting action is expected to cause a measurable change in water quality. With respect to temperature, a measurable change refers to an increase of 0.3°C at some point outside of the source area. We concur that the Tier II review should be limited to new or expanded actions causing a measurable change in one of the applicable parameters.

Recommendation:
We recommend that WAC 173-201A-320(3) be clarified as follows so that it is clear that the Tier II review does not automatically apply to a dam relicensing:

"(3) When the requirements of subsection (1) and (2) have been met, a Tier II analysis will only be conducted in conjunction with the following authorizations..."

6. Site-Specific Criteria Should Be Practical And Flexible To Implement

Many hydroelectric generating facilities in Washington State are deeply involved in or nearing their license renewal process. Relicensing involves a comprehensive evaluation of the environmental effects of each facility, including any effects on salmonids listed as threatened or endangered under the federal Endangered Species Act. The National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and other relevant federal, state, and tribal agencies with an interest in the protection of salmonids participate extensively in these relicensing proceedings. The result is that new licenses for these facilities include or will include salmonid protection, mitigation, and enhancement measures that are carefully tailored to address the specific needs of the salmonid populations in the vicinity of each facility.

Temperature standards, or criteria for other parameters such as total dissolved gas, should protect salmonid populations without painting Ecology and other agencies into a regulatory corner. If mechanical application of certain numeric criteria would prevent the implementation of alternative measures that would provide more benefits to fish and wildlife, while maintaining and protecting other existing beneficial uses, then the alternative measures should supercede attainment of the numeric criteria. Because the relicensing process brings ample study information together in one place that is specific to each project and tailored to address effects on salmonids, it provides a practical mechanism for allowing more appropriate criteria to be applied. Where current water temperatures or total dissolved gas levels are shown to adequately protect salmonids,

alternative standards should be established rather than a pursuit of efforts to achieve what are unattainable numeric criteria.

The proposed numeric temperature criteria recommendations, if adopted, would be extremely detrimental to the comprehensive effort to address salmonid population needs that occurs during the relicensing process. This is because the criteria, as water quality standards, would dictate that resources be diverted to achieving "optimal" temperatures, regardless whether the reduction in temperature would provide a significant benefit (or any benefit) to salmonid populations, and regardless whether the resources needed to reduce the temperature would be better spent on other protection, mitigation, or enhancement measures.[2] In effect, this would elevate achieving *optimal* temperatures to the highest regional priority rather than benefits to fish and wildlife and other beneficial uses.

Recommendation:

Because of the substantial information gathered for relicensing, two provisions in the proposed water quality standards should be revised; 1) WAC 173-201A-430 Site Specific Criteria; and 2) WAC 173-201A-510, Compliance Schedules for Dams.

a. Site-Specific Criteria.

WAC 173-201A-430-440 is unnecessarily encumbered by reference to 40 CFR 131.10 which implies that a Use Attainability Analysis (UAA) would be required to set site-specific criteria. Rather, site-specific criteria reflective of natural limitations and irreversible human actions can be established without treating the action as removal or downgrading of a beneficial use. As mentioned previously, Oregon's water quality standard provides a model of how a site specific standard can be implemented without going through a UAA or a cumbersome rulemaking process.

The regulations governing the establishment of numeric criteria, 40 CFR 131.11(b)(1), allow the states to "establish numerical values based on (i) 304(a) Guidance; or (ii) 304(a) Guidance modified to reflect site-specific conditions; or (iii) Other scientifically defensible methods". These regulations do not require a UAA in order to establish a site specific criteria. Consistent with this approach, Ecology has previously established a site specific standard for toxic substances which has been upheld by the Pollution Control Hearing Board. *Airport Communities Coalition v. State of Washington, Department of Ecology,* PCHB No. 01-160 (2002).

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[2] For example, hydroelectric projects fund offsite mitigation and enhancement measures from the revenue provided from the generation and sale of electrical power. If the operational or other changes required to lower stream temperatures reduce power generation or increase power costs, there will be less revenue available to fund these measures, which may in individual cases provide far more benefits to salmonid populations.

Recommendation:
The Mid-Columbia PUDs recommend that the reference to 40 CFR 131.10 be deleted in WAC 173-201A-430. Additionally, since site specific standards may be developed using other scientific methods, the reference to specific guidance documents as an exclusive procedure should also be eliminated. WAC 173-201A-430(1) – (5) should therefore be revised to read:

"(1) It is consistent with applicable federal and State law;

(2) Each site-specific standard is subject to a public and intergovernmental coordination process;

(3) The site-specific analyses for the development of new water quality criteria must be conducted in a manner that is scientifically justifiable; and

(4) Written authorization is received from the department."

b. Compliance Schedules For Dams

WAC 173-201A-510(5) termed "Compliance Schedules for Dams" was intended to accomplish several objectives: 1) allow the issuance of a 401 Water quality Certification upon an approved management plan that provided the Department reasonable assurance of compliance with applicable standards; 2) provide interim protection to both the department and licensee while studies were being undertaken and measures implemented; and 3) lead to the development of site specific standards when otherwise applicable numeric criteria could not be feasibly be attained. We believe that the draft language should clarify these objectives.

While these are important objectives to be achieved, we have a variety of concerns that should be addressed in the final rule. The detailed procedural requirements are unnecessary when designated uses are protected through a comprehensive set of measures developed through a public and intergovernmental process, such as relicensing. Our concerns include:

1) The rule should not apply outside of the dam relicensing process. We are concerned that extending the rule to exempt or unlicensed projects (certain dams may be exempt because of their size and some are not licensed because they do not operate power generating facilities) will detract from achieving the goals of the proposed rule.
2) As mentioned above, the proposed WAC rule is overly narrow in describing methods to develop site specific standards.
3) Compliance plans should only be subject to formally established water quality standards and criteria.

We have suggested the edits below to incorporate the concepts of temperature management plans modeled after EPA approved regulations in the State of Oregon and a more streamlined approach to site specific standards.

Recommendation:
WAC 173-201A-510(5) should be replaced with the following:

(a) When acting upon an application for certification under Section 401 of the Clean Water Act for a license renewal, the department may rely on a long term water quality management plan in its determination that there is reasonable assurance that the water quality criteria will be attained to the extent feasible, or where not feasible, that best management practices will be used.

(b) The plan may include:
  (i) A schedule, not to exceed 10 years, of reasonable and feasible improvements to be achieved that are necessary to avoid adverse impacts to designated uses;
  (ii) Any department approved gas abatement plan as described in WAC 173-201A-200(1)(f)(ii) or (iii); or
  (iii) Any comprehensive plan to protect fish and wildlife within the Project area;
  (iv) Annual reporting and monitoring necessary to assess progress on implementation of the plan.

(c) Compliance with an approved water quality management plan shall be deemed to be compliance with the applicable water quality standards and other requirements established by the department.

(d) When the department has an approved water quality management plan and the department determines that (1) all feasible steps have been taken to meet the criteria or (2) the designated uses are not being adversely impacted by failure to meet criteria, then the resulting level of attainment achieved becomes the new criteria for that waterbody.

(e) Structural changes made as part of the department approved gas abatement plan to aid fish passage, described in WAC 173-201A-200(1)(f)(ii) and (iii), may result in permissible system performance limitations in meeting water quality criteria for that parameter.

(f) This Section shall be construed to be in addition to those in WAC 173-201A-510(4).

SUMMARY

The Mid-Columbia PUDs appreciate the efforts made by Ecology to maintain an open, collaborative dialogue while revising the WQS and converting to a Use-Based system. We also appreciate the efforts made by Ecology to incorporate flexibility into the revised WQS. This flexibility includes defining a specific process that will allow the department to issue permits and orders, including 401 Certifications for existing hydroelectric projects. In general, we believe that the framework proposed for certification of hydroelectric projects is functional and will meet Ecology's needs for issuance of water quality certifications during relicensing proceedings.

The Mid-Columbia PUDs still remain concerned about the adoption of the proposed numeric criteria for water temperature. We agree that temperature is a critical water quality parameter for salmonids. Temperature criteria, however, should be set at temperatures that are necessary to protect salmonid populations, not at unrealistic and unachievable "optimal" temperatures. Moreover, because of the substantial geographic and temporal variability in stream temperatures, as well as the variability in the temperature needs of different salmonid populations and life stages, temperature standards must include practicable mechanisms for addressing circumstances in which regional numeric temperature criteria are inappropriate. Otherwise, the adoption and application of the recommended numeric temperature criteria may provide little or no additional benefit to salmonid populations, but add considerable cost to hydroelectric utilities and other industries in the Pacific Northwest. The efforts and expenditures diverted to deal with inappropriate numerical temperature criteria may detract from effort and funding of other efforts to restore salmon populations.

Thank you for again considering Mid-Columbia PUDs comments. The Mid-Columbia PUDs look forward to continuing to work with Ecology and other federal and state agencies on this issue.

Mark De Rousi

Section 020.

MARK DE ROUSI

"**Enterococci**" refers to a subgroup of the fecal streptococci that includes *S. faecalis*, *S. faecium*, *S. gallinarum*, and *S. avium*. The enterococci are differentiated from other streptococci by their ability to grow in 6.5% sodium chloride, at pH 9.6, and at 10°C and 45°C.

"***E. coli*" or "*Escherichia coli*"** is an aerobic and facultative gram negative non-spore forming rod shaped bacteria that can grow at 44.5 Celsius that are ortho-nitrophenyl-B-D-galactopyranoside (ONPG) positive and Methylumbelliferyl glucuronide (MUG) positive.

Oral Comment

(A)

"Existing uses" means those uses actually attained in fresh or marine waters on or after November 28, 1975, whether or not they are designated uses. Introduced nonnative species, and put-and-take fisheries comprised of nonself-replicating introduced native species, do not need to receive full support as an existing use.

"Fecal coliform" means that portion of the coliform group which is present in the intestinal tracts and feces of warm-blooded animals as detected by the product of acid or gas from lactose in a suitable culture medium within twenty-four hours at 44.5 plus or minus 0.2 degrees Celsius.

"Geometric mean" means either the nth root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.

"Ground water exchange" means the discharge and recharge of ground water to a surface water. Discharge is inflow from an aquifer, seeps or springs that increases the available supply of surface water. Recharge is outflow downgradient to an aquifer or downstream to surface water for base flow maintenance. Exchange may include ground water discharge in one season followed by recharge later in the year.

"Hardness" means a measure of the calcium and magnesium salts present in water. For purposes of this chapter, hardness is measured in milligrams per liter and expressed as calcium carbonate ($CaCO_3$).

"Irrigation ditch" means that portion of a designed and constructed conveyance system that serves the purpose of transporting irrigation water from its supply source to its place of use; this may include natural water courses or channels incorporated in the system design, but does not include the area adjacent to the water course or channel.

"Lakes" shall be distinguished from riverine systems as being water bodies, including reservoirs, with a mean detention time of greater than fifteen days.

"Lake-specific study" means a study intended to quantify existing nutrient concentrations, determine existing characteristic uses for lake class waters, and potential lake uses. The study determines how to protect these uses and if any uses are lost or impaired because of nutrients, algae, or aquatic plants. An appropriate study must recommend a criterion for total phosphorus (TP), total nitrogen (TN) in µg/l, or other nutrient that impairs characteristic uses by causing excessive algae blooms or aquatic plant growth.

Received 2/5/2003
Pt. Angeles Public Hearing
Bev Poston-Hearing Officer

"Mean detention time" means the time obtained by dividing a reservoir's mean annual minimum total storage by the thirty-day ten-year low-flow from the reservoir.

"Migration or translocation" means any natural movement of an organism or community of organisms from one locality to another locality.

"Mixing zone" means that portion of a water body adjacent to an effluent outfall where mixing results in the dilution of the effluent with the receiving water. Water quality criteria may be exceeded in a mixing zone as conditioned and provided for in ~~WAC 173-201A-100~~ WAC 173-201A-400.

"Natural conditions" or **"natural background levels"** means surface water quality that was present before any human-caused pollution. When estimating natural conditions in the headwaters of a disturbed watershed it may be necessary to use the less disturbed conditions of a neighboring or similar watershed as a reference condition. (See also WAC 173-201A-260(2))

(13) "**New or expanded actions**" mean human actions that occur for the first time, or human actions that are modified after July 1, 2003, for the purpose of applying the antidegradation section in WAC 173-201A-320. point source or non point source

"Nonpoint source" means pollution that enters any waters of the state from any dispersed land-based or water-based activities, including but not limited to atmospheric deposition, surface water runoff from agricultural lands, urban areas, or forest lands, subsurface or underground sources, or discharges from boats or marine vessels not otherwise regulated under the National Pollutant Discharge Elimination System program.

"Permit" means a document issued pursuant to RCW 90.48.160 et seq. or RCW 90.48.260 or both, specifying the waste treatment and control requirements and waste discharge conditions.

"pH" means the negative logarithm of the hydrogen ion concentration.

"Pollution" means such contamination, or other alteration of the physical, chemical, or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental, or injurious to the public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish, or other aquatic life.

"Primary contact ~~recreation~~ use" means activities where a person would have direct contact with water to the point of complete submergence including, but not limited to, skin diving, swimming, and water skiing.

"Secondary contact ~~recreation~~ use" means activities where a person's water contact would be limited (wading or fishing) to the extent that bacterial infections of eyes, ears, respiratory or digestive systems, or urogenital areas would normally be avoided.

"**Shoreline stabilization**" means the anchoring of soil at the water's edge, or in shallow water, by fibrous plant root complexes; this may include long-term accretion of sediment or peat, along with shoreline progradation in such areas.

"**Storm water**" means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

"**Storm water attenuation**" means the process by which peak flows from precipitation are reduced and runoff velocities are slowed as a result of passing through a surface waterbody.

"**Surface waters of the state**" includes lakes, rivers, ponds, streams, inland waters, saltwaters, wetlands and all other surface waters and water courses within the jurisdiction of the state of Washington.

"**Temperature**" means water temperature expressed in degrees Celsius (°C).

(C) "**Thermal refuge**" means areas of water having temperatures at least 2°C cooler than the surrounding water that can be used by fish to avoid, or limit, exposure to the warmer surrounding water. ground water - so from that source

"**Treatment wetlands**" means those wetlands intentionally constructed on nonwetland sites and managed for the primary purpose of wastewater or storm water treatment. Treatment wetlands are considered part of a collection and treatment system, and generally are not subject to the criteria of this chapter.

"**Trophic state**" means a classification of the productivity of a lake ecosystem. Lake productivity depends on the amount of biologically available nutrients in water and sediments and may be based on total phosphorus (TP). Secchi depth and chlorophyll-a measurements may be used to improve the trophic state classification of a lake. Trophic states used in this rule include, from least to most nutrient rich, ultra-oligotrophic, oligotrophic, lower mesotrophic, upper mesotrophic, and eutrophic.

"**Turbidity**" means the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

"**Upwelling**" means the natural process along Washington's Pacific Coast where the summer prevailing northerly winds produce a seaward transport of surface water. Cold, deeper more saline waters rich in nutrients and low in dissolved oxygen, rise to replace the surface water. The cold oxygen deficient water enters Puget Sound and other coastal estuaries at depth where it displaces the existing deep water and eventually rises to replace the surface water. Such surface water replacement results in an overall increase in salinity and nutrients accompanied by a depression in dissolved oxygen. Localized upwelling of the deeper water of Puget Sound can occur year-round under influence of tidal currents, winds, and geomorphic features.

"**USEPA**" means the United States Environmental Protection Agency.

Hamilton, Pat
Pacific Co Bd of Dir

Washington Department of Ecology - Laws and Rules
Ecology Home: Laws and Rules : Public Rule-making Hearings

Public Rule-making Hearings

PACIFIC COUNTY BOARD OF DIRECTORS
PAT HAMILTON [redacted]

Chapter 173-201A WAC - Water Quality Standards for Surface Waters of the State of Washington

All hearings begin at 6:00 PM.

- **Wenatchee** - Mon., Jan. 27, 2003
  Chelan Co. Auditorium
  400 Douglas
- **Spokane** - Tues., Jan. 28, 2003
  Spokane Falls Community College
  Stud. Union Bldg 17, Lounge AB
  3410 W Fort George Wright Dr.
- **Pasco** - Wed., Jan. 29, 2003
  Columbia Basin College
  2600 N. 20th Ave.
- **Yakima** - Thurs., Jan. 30, 2003
  Ecology Central Region Office
  15 West Yakima Ave., Suite 200
- **Vancouver** - Thurs., Feb. 6, 2003
  Water Resources Center
  4600 SE Columbia Way
- **Bellingham** - Mon., Feb. 3, 2003
  Whatcom Co. Courthouse
  311 Grand Ave.
- **Seattle** - Tues., Feb. 4, 2003
  Seattle Center
  Northwest Rooms: Lopez Room
  305 Harrison St.
- **Port Angeles** - Wed., Feb. 5, 2003
  Vern Burton Center
  308 East 4th St.

Comment period ends: March 7, 2003 - 5:00 PM

Chapter 173-170 WAC - Agricultural water supply facilities

- All hearings begin at 7:00 PM.

slds ↑
TMDL ↑
length 303(d) list ↑

- **Yakima** - Tuesday, Feb 4, 2003
  Dept. of Ecology
  Central Regional Office
  15 W. Yakima Ave, Suite 200
- **Moses Lake** - Wednesday, Feb 5, 2003
  Police Justice Building
  Council Chambers Room
  401 S. Balsam
- **Wenatchee** - Thursday, Feb 6, 2003
  Chelan County Planning
  Conference Room #204
  411 Washington St.

Comment period ends: February 14, 2003 - 5:00 PM

Received 2/6/2003 Vancouver Public Hearing
Bev Poston - Hearing Office

DONE ATK

ROD POTTER

[redacted]

Department of Ecology
Water Quality Program

MAR 06 2003

1512 Inchelium Hwy
Inchelium, WA 99138
March 3, 2003

Susan Braley
PO Box 47600
Olympia, WA 98504-7600

Dear Ms Braley:

I am writing in protest of DOE's position on the water quality standards, and putting the unreasonable responsibility to the property owners. It is not right to have laboratory-defined conditions applied in nature's activities. Because of the complexity of our environment we are unable to do this. When the weather conditions and temperature change the fish and wildlife will migrate, regardless of our control. That is God's design, and He is able to control without our help. Some things we can't control, and to assume we can is nothing short of arrogance. Polluting our water with any kind of chemicals and trash should not be tolerated. This includes the possibility of chemical warfare. Let's be realistic and put our emphasis on what we can change and not try to play God.

Sincerely,

Rod Potter

Rod Potter

Copy being sent to:
Senator Maria Cantwell
Senator Patty Murray
Congressman George Nethercutt
State Senator Bob Morton
State Representative Bob Sump
State Representative Cathy McMorris

#10 4/1/03

AMERICAN RIVERS

BRINGING RIVERS TO LIFE

American Rivers

FOUNDED 1973

FAX TRANSMISSION COVER SHEET

Date: 3/6/03

To: Susan Braley

Fax #: (360)407-6426

Re: comments on draft WQ standards

Sender: Connie Kelleher

You should receive 8 page(s), including this cover sheet.
If you do not receive all the pages, please call 206-213-0330. Thank you.

American Rivers Northwest Regional Office
150 Nickerson Street, Suite 311
Seattle, WA 98109
Phone: 206-213-0330 Fax: 206-213-0334
Email: arnw@amrivers.org
www.americanrivers.org

March 6, 2003

VIA FAX AND REGULAR MAIL

Susan Braley
Surface Water Quality Standards
Washington State Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Re: Comments on the Department of Ecology's draft water quality standards

Dear Ms. Braley:

Thank you for the opportunity to comment on the Department of Ecology's proposed amendments to Washington's water quality standards, as set forth in Chapter 173-201A of the Washington Administrative Code. American Rivers is a national nonprofit conservation organization dedicated to protecting and restoring healthy natural rivers and the variety of life they sustain for people, fish, and wildlife. American Rivers has a growing membership of approximately 30,000 people. Our Northwest office is based in Seattle and serves over 1,700 members in the region, including approximately 945 members in the state of Washington.

Water quality standards are the foundation of water quality protection for Washington's rivers, wetlands, and marine waters. American Rivers agrees that it is high time to update Washington's water quality standards, incorporating the best available science. We are concerned, however, that Ecology's current proposal is inadequate to protect Washington's water resources as mandated by the Clean Water and Endangered Species Acts. After several years of delays, Ecology is now proposing water quality standards that show very little environmental improvement—in some cases even worse than before.

In addition to our substantive concerns, we find Ecology's rulemaking process extremely troubling. This "triennial review" took ten years to complete, leaving Washington's water quality standards outdated and inadequate. American Rivers submitted comments on Ecology's draft rule that was issued two years ago. Since that time it appears that Ecology has focused its efforts on creating a rule that caters to the interests of the regulated community at the expense of clean water, salmon, and public health.

NORTHWEST REGIONAL OFFICE
150 NICKERSON STREET
SUITE 311
SEATTLE, WA 98109
206-213-0330
206-213-0334 (FAX)
arnw@amrivers.org

printed on 100% post-consumer recycled paper with soy-based inks

We also believe that the roundtable "stakeholder" process was an inappropriate component of the rulemaking process. The roundtable process was composed primarily of regulated industries, and this influence is reflected in the revised rule. There were substantial changes from the December 2001 draft in response to the roundtable process--significantly weakening several provisions of the rule.

We strongly urge Ecology to make the following changes to the draft rule:

1. Outstanding National Resource Waters (WAC 173-201A-330)

Preserving intact, healthy rivers and streams is the most effective and least costly means of protecting and maintaining healthy freshwater ecosystems. The Clean Water Act provides for the designation of Outstanding National Resource Waters (ONRWs), which are afforded the highest protection from future degradation. ONRWs are the best of the best of our state's waters—rivers, lakes, streams, and marine areas that have outstanding water quality or other exceptional values. Many other states have designated ONRWs. Washington is blessed with many exceptional waters that should qualify for ONRW designation, yet in the thirty since the Clean Water Act was passed Ecology has never acted to designate any ONRWs.

We reiterate our comments submitted on the last draft rule (comments filed February 16, 2001). We believe that Ecology's proposed rule is not entirely consistent with federal regulations and guidance. The proposed rules make it extremely difficult for almost any water body in Washington to meet the criteria for ONRW designation. Ecology has too narrowly defined which waters would be eligible and has unnecessarily politicized the designation process. We also are concerned about the proposed public participation provisions of the rule. Our specific concerns follow.

- (1)(a) Waters in national and state parks, etc.

American Rivers appreciates and supports the changes made to the draft ONRW rule that reduce some of the burdensome eligibility requirements from the previous draft issued for public comment. However, Ecology still has included the threshold requirement that waters must be in a "relatively pristine condition" or possess "exceptional water quality" in addition to being in a national or state park, refuge, etc. in order to qualify for designation. As we pointed out in our previous comments on the last version of this rule (comments submitted February 16, 2001), the federal regulation has no such requirement. Indeed, the federal regulation suggests that waters in national parks, national monuments, national preserves, national wildlife refuges, national wilderness areas, federal wild and scenic rivers, national seashores, national marine sanctuaries, national recreation areas, national scenic areas, and national estuarine research reserves; and waters in state parks, state natural areas, state wildlife management areas, and state scenic rivers should be designated ONRWs simply by virtue of their designation as parks, refuges, scenic areas, and the like: "Where high quality waters constitute an outstanding National resource, *such as* waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected" 50 C.F.R. § 131.12 (emphasis added). Thus, there is no requirement that waters in these areas be in a "relatively pristine condition" or possess "exceptional water quality" in addition to being located in these areas.

Waters located within these special federal and state areas should be presumed to merit ONRW protection. One way to meet the intent of the federal regulation while retaining discretion to deny designation to water bodies that present special problems might be to amend the proposed rule to include a presumption that all waters within the public places named in the proposed section (1)(a) will be designated ONRWs, absent a demonstration of the circumstances in section 173-201A-330 (3)(b). The intent of the federal regulation, however, is clearly that water quality in these special public areas should be preserved and protected simply because they have been designated special places to set aside for the public and as such, no matter what state their water quality is in currently, it should not be further degraded and indeed, it should be restored if it is not of high quality.

- (1)(b) Unique habitat types

As stated in our previous comments, Ecology has eliminated the original category for "[d]ocumented aquatic habitat of priority species as determined by the department of wildlife; and [d]ocumented critical habitat for populations of threatened or endangered species of native anadromous fish. WAC 173-201A-080(3) & (4). Eliminating the original category for critical habitat is at odds with the recovery of threatened and endangered species. It also is inconsistent with the federal regulation, which provides for designation for waters that have exceptional "ecological significance." Ecology should retain a category for waters that have "ecological significance" and define this term to include critical habitat for threatened and endangered species and habitat for state priority species. This is not only consistent with the federal regulation, but serves the recovery goals for threatened and endangered species and state priority species.

- (1)(c) High water quality or regionally unique recreational value

As stated in our previous comments, Ecology proposes to change the original eligibility category regulation from "[w]aters of exceptional recreational or ecological significance" to waters having "*both* high water quality *and* regionally unique recreational value" (emphasis added). According to the federal regulation, however, a water body meeting either one of these categories should be eligible for designation as an ONRW. Therefore, the language should be changed to "both high water quality or regionally unique recreation value." This allows for unique waters and important recreational rivers as well as our state's highest quality waters to be protected from degradation. In addition, as stated in the previous section, Ecology should retain the category for waters having ecological significance.

- (2)(b) Departmental nominations

The regulations should include a process by which Ecology will do its own review of which waters should be designated as ONRWs. Ecology should not rely solely on public nominations, but should include an internal process for assessing and designating and a timeline for reviewing and updating these designations.

- (3)(a) Department response to petitions

Ecology states that it will determine whether or not a petition to nominate an ONRW is sufficient for review within 60 days after the petition is submitted, but does not specify how long its review process will take. Ecology has stated elsewhere that it intends to make these determinations at the next triennial update. This is not a reasonable timeframe by which to act on citizen petitions to designate ONRWs. Waiting for the next triennial update is far too long a time period—by that time currently healthy waters could be degraded so that they are no longer eligible. A shorter review period is especially critical to protect high quality waters that are most at risk from development. In addition, Ecology took over a decade to do its last "triennial update." Protecting our state's best waters should not be tied into this process. We recommend that the review process take no longer than one year.

- (3)(b) Imminent social or economic impact

Ecology has unnecessarily politicized the designation process by excluding waters where "substantial and imminent social or economic impact to the local community will occur, unless the public support is overwhelmingly in favor of the designation." This vague provision could prevent the protection of the high quality waters that are most at risk. ONRW designations should be based primarily on the merits of the water body, not on political considerations. It is important to note that many other states, including Arizona, Colorado, Vermont, Montana, Kentucky, and Florida, have designated ONRWs. This has not caused widespread economic hardship, but rather has preserved many exceptional waters. The draft language should be changed so that it is clear that this exception would apply only in very limited circumstances. In the analysis of social or economic impacts, Ecology must include all costs and benefits included with lowering water quality, including the benefits of clean water, healthy fish and wildlife populations, and recreational and scenic values. Ecology should also create internal guidance that would clarify the types of impacts that would prevent the designation of an ONRW under this section.

We are pleased that Ecology has retained its authority to designate ONRWs rather than delegating this decision to the Governor or the state legislature. However, we are concerned that Ecology, as indicated in its Antidegradation Discussion Document, intends to consult with the legislature as part of its designation review. This is unnecessary as the draft rule already provides for a public comment process. The designation and protection of Washington's highest quality waters should be made by the agency with technical expertise on the issue, not thrust into the political arena.

2. Antidegradation (WAC 173-201A-320)

The Clean Water Act requires states to develop an antidegradation policy to ensure that currently healthy waters are not degraded. Healthy waters protect irreplaceable ecosystems and public health. It is also much easier and cost-effective to prevent pollution at its source than to clean it up later.

Overall, Ecology's proposed antidegradation policy is far too weak and contains too many loopholes. The antidegradation policy should reflect the plain meaning of

antidegradation: no degradation should be allowed beyond existing conditions, even if the existing conditions met or exceed Clean Water Act requirements. Ecology's antidegradation policy seems more geared to provide polluters with additional exceptions, rather than to improve Washington's degraded waters and prevent degradation of existing water quality.

The proposed policy is overly restrictive in identifying actions that will trigger an antidegradation review. The review would only be applied to new and expanded operations, thus grandfathering in all existing activities. WAC 173-201A-320 (1). Existing activities that are not currently permitted or certified that currently and/or will impact water quality must be included in antidegradation review.

Ecology limits the antidegradation review to activities permitted by DOE (WAC 173-201A-320 (3). This list is far too restrictive and inadequate to prevent degradation. The antidegradation review should be triggered for all activities that have the potential to diminish the chemical, physical, or biological integrity of the water body.

In the analysis to determine if the lowering of water quality is necessary and in the overriding public interest (WAC 173-201A-320 (4)), Ecology must include all costs and benefits included with lowering water quality, including the benefits of clean water, healthy fish and wildlife populations, and recreational and scenic values.

The draft rule also contains a huge loophole for general permits and other pollution controls (such as forest practices rules). WAC 173-201A-320 (6). This fails to meet the antidegradation requirements. All general permits and pollution control programs should be subject to full antidegradation review and comply with antidegradation standards.

3. Temperature

Water temperature is a critical factor in determining which fish and other aquatic organisms can live in a stream or river. Salmon, bull trout, and other aquatic life need cold water to survive. Elevated temperatures are a major cause of water quality problems in Washington, affecting 42% percent of the state's 643 known impaired waters.

Despite this, Ecology has weakened its proposed temperature from previous drafts of its rule. The proposed temperature standards have gotten warmer and warmer and are now almost identical to those proposed by the pulp and paper industry. Washington has made real progress in the last ten years in salmon recovery efforts. Ecology's proposed temperature standards, however, will reverse this trend.

The proposed temperature standards are inadequate to protect and support salmon and other aquatic species in two ways. First, Ecology has relaxed its standards from those proposed in December 2001 for almost every category. These standards were already at the upper limit of acceptable temperatures for salmonids. Ecology's current proposed standards do not conform to either the generally accepted science or the EPA Draft Regional Temperature Guidance (October 2002). We recommend that Ecology retain, at a minimum, the more protective standards proposed in the December 2001 draft. In addition, in accordance with the EPA Guidance, the standards must be applied both

where salmonids currently exist and historic habitat where salmonids may potentially exist if the temperature problems were corrected.

Second, the use of the 7-day average for temperatures decreases the likelihood that waters will be protected to sustain fish. The 7DADM should not be the only standard because continuous data is not always available for most areas. It is also makes monitoring more complicated and excludes the public from any role in monitoring. There is also no protection from temperature exceedances occurring in a shorter time period. We recommend that Ecology include a 1-day peak temperature standard to serve as a default in order to protect fish and facilitate compliance monitoring.

4. Dissolved oxygen

Ecology has also weakened its proposed standard for dissolved oxygen, which ensures that a sufficient amount of oxygen is available in the water for fish. Ecology originally proposed to measure the average amount of dissolved oxygen in a water body over a 7-day period. Ecology is now proposing a 3-month average measuring standard, which is less protective because it allows wider variations of the amount of dissolved oxygen over time. This is inadequate to protect salmonids as mandated by the Endangered Species and Clean Water Acts. We support the earlier December 2001 proposal to use average daily minimum/maximum metrics for measurement of dissolved oxygen.

5. Short-term modifications (WAC 173-201A-410)

Ecology's current proposal allows for short-term lowering of water quality standards to accommodate major watershed restoration projects that are in the public interest, such as dam removals (WAC 173-201A-410). We support this provision. However, the rule does not provide for the long-term, permanent impacts to a use of a water body that could occur in the case of a dam removal (such as impacts to a non-native fishery that has thrived in an unnatural reservoir created by a dam). Ecology should clarify that where necessary to benefit the river ecosystem and when in the public interest, long-term/permanent impacts to certain uses may be permitted.

In addition, consistent with the request above to change WAC 173-201A-410, the anti-degradation policy (WAC 173-201A-300) also should allow for modifications to uses to accommodate major watershed restoration projects such as dam removals.

6. Use attainability analysis (WAC 173-201A-440)

Ecology's proposal would allow polluters to use UAA's to eliminate uses based on economics. The UAA process should be much more limited in accordance with the intent of the Clean Water Act. If an economic analysis is done, it should take into account the economic benefits/impacts of fisheries, clean water, and recreation.

7. Compliance schedules for dams (WAC 173-201A-510 (5))

Ecology's proposed rule grants a special exemption for dams that do not meet water quality standards. There is no reason why dams should receive this special treatment. The Clean Water Act does not provide such an exemption and Ecology should not

provide this either. The ability of states to impose conditions on dams in order to protect water quality, via § 401 certifications, is a very critical and powerful authority. Washington State has fought very hard to uphold its § 401 authority in the face of numerous federal attempts to weaken it. Ecology should not be diluting its ability to implement this authority by allowing dams to escape the requirement to meet water quality standards.

Ecology is proposing to allow dams up to ten years to come into compliance with water quality standards. This is unacceptable. Many of these dams have been operating for over 50 years and have had plenty of time to get into compliance already. Ecology should not be issuing § 401 certifications until the applicant has submitted evidence, data, and modeling that its proposed measures will provide a reasonable assurance that water quality standards will be met. This requires that the applicant do the requisite analysis of the proposed measures and include that analysis in its plan. If the applicant cannot illustrate reasonable assurance that water quality standards will be met with the proposed measures, the § 401 permit should be denied.

8. Mixing zones (WAC 173-201A-400)

Ecology has abandoned its earlier proposal to eliminate mixing zones for persistent bioaccumulative toxics (PBTs), which are extremely hazardous to humans and fish and wildlife. Ecology should adopt its earlier proposal so that polluters are no longer permitted to discharge PBTs in amounts that violate water quality standards.

9. Designated Uses (WAC 173-201A-200)

Ecology's proposed standards would eliminate protection for the specific categories of recreation (i.e., fishing, boating, aesthetic enjoyment) and salmon migration. Recreational use of rivers is often dependent upon adequate flows. Similarly, salmon need adequate flows to facilitate migration to and from the ocean. Therefore, eliminating these two categories would reduce protection for instream flows. We recommend that Ecology retain recreation and salmon migration as protected uses.

Thank you for considering our comments.

Sincerely,

Connie M. Kelleher

NOOKSACK INDIAN TRIBE – NAT RES 4/2/03
ROBERT KELLY

Nooksack Indian Tribe
Natural Resources Department

3891 Uluquance Drive • P. O. Box 157 • Deming, WA 98244
(360) 592-2632 • Fax (360) 592-5753

March 7, 2003

Department of Ecology
Water Quality Program
MAR 07 2003

Susan Braley
Surface Water Quality Standards
Washington State Dept. of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Susan Braley:

We appreciate the opportunity to comment on the Water Quality standards that Ecology is proposing. As you are aware, water resources are an essential component of the Nooksack Tribe's and in fact, all of Washington's Treaty Tribes, and all of Washington State residents' resources. The protection of these resources has been allocated by the U.S. EPA to the State of Washington under the Clean Water Act, which requires that EPA's Trust responsibility to the Tribes be preserved. These rights include the harvest of fish from locations established by treaty. Degradation of water quality to the extent that survival of fish as a species is endangered is a violation of those treaty rights and that Trust. Under Washington's existing water quality standards, we have seen a reduction in the populations of salmonids to the point where their existence is classified under the U.S. Endangered Species Act as threatened. These proposed modifications to the Clean Water standards must, under U.S. law and treaty designation, promote the survival and recovery of these fish. Indeed, it is essential for the health and viability of Washington's Native Americans, as well as all State residents, that Washington's water resources be maintained for uses beyond disposal systems for our commercial and natural resource based industries.

Protections for ESA listed Salmonids in the Nooksack Watershed

The Nooksack River Basin provides habitat for the ESA listed Chinook and Bull Trout. Puget Sound Chinook are defined by five Evolutionary Significant Units (ESUs), two of the five ESU reside only in the Nooksack Basin, the North Fork Nooksack River Spring Chinook and the Middle Fork Nooksack River Spring Chinook. As such, Chinook residing in the Nooksack Watershed are essential to the successful recovery of these Threatened species. Spring chinook have been observed spawning in July in the North Fork of the Nooksack River. A maximum water temperature of 16° C under the proposed standards does not provide habitat in which Chinook can migrate to their spawning grounds. The rationale for a recognized unsuitable temperature for

cannot be used as a justification for non-compliance with water quality standards, and degradation of our water quality.

The economic analysis that is adopted should incorporate a range of factors representative of the full range of water-dependent activities conducted in this state in assessing the economic impacts of water quality compliance. To assist Ecology in identifying a comprehensive scope of economic factors that should be considered in constructing economic assessments, so that they may account for the full range of economic costs associated with water quality modifications, a document produced by the WRIA 1 project is included with these comments. It is an explanation of non-market goods and services that are being considered as part of the WRIA 1 Watershed Plan Implementation Economic analysis, and was written by Hart Hodges of the Center for Business and Economic Research at Western Washington University.

Fish Distribution Representative of Known Distributions

It is important that the Rule defining implementation of the new standards describe a workable process for identification of fish use area distributions, and for update of those known distribution areas periodically. The distribution area delineations should be inclusive of tribal staff, as well as State Department of Fish and Wildlife staff and U.S. Fish and Wildlife staff expertise. The frequency should be often enough to incorporate information in real time on the updated understanding of fish usage, and sustain consistent progress towards recovery of listed species. For example, the known fish distribution for Bull Trout, as interpreted by the US Fish and Wildlife Service, will be published in the Federal Register later this year. In addition, Nooksack Natural Resources Department staff have reviewed available distribution information for the Nooksack Watershed and drafted the most complete description for all salmonid use that has ever been compiled. Provision for these information sources to be incorporated into the use distributions should be part of the procedure defined for use-criteria. The pooled data and experience of all co-managers and agencies must be available in establishing adequate protections for all known habitat distributions, as well as presumed habitat locations, in order to provide sufficient habitat for recovery of salmonids to harvestable levels. And, accomplishing optimal habitat conditions will require that water quality be appropriate for healthy habitat.

Protections for Instream Flows

Fisheries Services will be consulted in the approval process. We will anticipate working with these agencies and Ecology in future negotiations on the Standards.

Sincerely,

Robert Kelly
Director

cc: Tom Hooper, U.S. Fish and Wildlife Service
Jim Muck, National Oceanographic and Atmospheric Administration
Fran Wilsushen, Northwest Indian Fisheries Commission
Andy Ross, Lummi Nation Natural Resources Department
John Kovonosky, Suquamish Natural Resources Department
Rachel Paschal-Osborne

value directly from active use of a non-market good or service. Use value includes the value derived from the following:

- *Recreational enjoyment:* This includes the satisfaction that is directly provided by activities such as boating, hiking, sport fishing, sightseeing, birding, photography, and other recreational activities. Resources such as salmon may provide recreational value directly, whereas other resources may provide such value indirectly (as well as directly). For example, riparian zones may provide temperature attenuation in streams, enhancing salmon populations. This enhances recreational activities associated with salmon. Similarly, the temperature attenuation on beaches provided by marine shoreline vegetation may enhance the reproduction of surf smelt (forage for salmon) and provide habitat for winged insects, which are an important part of the diet of salmon. Again, these ecosystem services indirectly enhance recreational opportunities by enhancing salmon populations.

- *Avoided damage; health maintenance:* This includes the value that ecosystem services provide via avoided damage to humans or to things they value, including protection of human health (as the result of having clean air to breathe and clean water to drink), avoided damage to property (as the result of flood control services provided by wetlands and forests), and avoided damage to other resources. It also includes the value derived from recreational activities that are associated with maintenance of health.

- *Aesthetic enjoyment:* This includes the value from direct enjoyment of aesthetic goods, such as clean-smelling air, a pleasant view, etc.

- *Non-commercial harvest:* This includes the value from non-market consumptive uses of resources. Examples include subsistence fishing, gathering of mushrooms and berries, etc.

- *Cultural and educational use values:* This includes the satisfaction that is provided by non-market cultural activities, as well as the non-market component of educational activities.

Passive-use value (also referred to as *nonuse* value) is the value a person receives from resources even though the person does not use the resource in a direct or active manner. For example, people may derive increased satisfaction (utility) simply from knowing that wildlife is protected or that ecosystems are intact, even if they do not pursue activities that make direct use of those resources. In each case, people are deriving economic value in a passive manner. The major types or forms of passive use values are existence value, option value, and quasi-option value.

- *Existence value* is the value someone gets from simply knowing that a resource or amenity exists. There are several possible motives underlying existence value. These may include altruism, the desire to leave a bequest to future generations, or

Category of NMGS	Types of Value
Recreational Services	
Boating	Rec. enjoyment, health maintenance, option value
Hiking	Rec. enjoyment, health maintenance, option value
Other recreational activities	Rec. enjoyment, health maintenance, option value
Ecosystem Goods	
Salmon	Existence value, recreational enjoyment, option and quasi-option value
Piscivorous Birds (eagles, osprey, other species)	Existence value, recreational enjoyment, option and quasi-option value
Other animals and plants	Existence value, recreational enjoyment, option and quasi-option value
Open space	Recreat.enjoy,. aesthetic use value
Viewscapes	Recreat.enjoy,. aesthetic use value
Ecosystem Services	
Water treatment	Avoided costs; other uses and passive uses (indirect)
Flood control	Avoided costs; other uses and passive uses (indirect)
Stream temperature attenuation	Avoided costs; other uses and passive uses (indirect))
Beach temperature attenuation	Avoided costs; other uses and passive uses (indirect)
Groundwater recharge	Avoided costs; other uses and passive uses (indirect)
Habitat provision	Use and passive-use values (direct and indirect)
Nutrient cycling/waste process.	Avoided costs; other uses and passive uses (indirect)
Pollination	Avoided costs; other uses and passive uses (indirect)
Energy conversion	Avoided costs; other uses and passive uses (indirect)
Soil formation and retention	Avoided costs; other uses and passive uses (indirect)
Food and forage production	Avoided costs; other uses and passive uses (indirect)
Cultural Goods and Services	
Traditional "ways of life"	Cultural use values, Passive-use value
"Sense of community"	Cultural use values, Passive-use value
Family activities	Cultural use values, Passive-use value (indirect)
Other Cultural Activities	Cultural use values, Passive-use value (indirect)
Other Goods and Services	
Education and research	Educational use values
other…?	

130
131

This process begins by considering which resources are impacted by each management alternative. The resources which might be affected include:

- Wetlands (inland, marine)
- Riparian Zones
- Farmland
- Forests (old-growth and late-successional, other forests)
- Other Uplands
- Rivers and Streams
- Lakes and Ponds
- Marine Shoreline - Vegetation
- Marine Shoreline - Structure
- Marine – Intertidal Zone
- Marine – other nearshore
- Urban and suburban landscaping
- Physical capital

  etc.

In each case, the direct and indirect effects on each NMGS resulting from a change to that resource would have to be identified. (Examples of this process will be provided in the final report.) This generates a "bundle" of effects on NMGS for each management alternative. The types of value affected by these bundles can be identified and quantified, and the management alternatives compared. When management alternatives are analyzed, it is much less expensive to analyze the effects on a bundle of NMGS than to analyze separately the effects on each NMGS in the bundle.

The final report will discuss implementation issues in greater depth, including a discussion of methodologies for quantifying the values provided by NMGS, and alternatives to quantitative analysis. It will also provide a framework for incorporating the market and non-market effects in a unified socioeconomic analysis.

4/2/03

JAMESTOWN S'KLALLAM TRIBE

1033 Old Blyn Highway, Sequim, WA 98382 360/683-1109 FAX 360/681-4643

March 7, 2003

Mr. Tom Fitzsimmons, Director
Washington State Department of Ecology
P.O. Box 47600 Olympia, WA. 98504-7600

RECEIVED
MAR 1 1 2003
DEPARTMENT OF ECOLOGY
OFFICE OF DIRECTOR

RE: Changes to the State Water Quality Standards

Dear Mr. Fitzsimmons:

The Jamestown S'Klallam Tribe and the Department of Ecology have established a cooperative relationship in many areas of mutual interest, and the Tribe hopes to continue with that cooperation in the future. This letter specifically concerns the proposed revisions to the State's water quality standards.

Tribal staff have been involved in Washington State's Triennial Review for nearly a decade. We have appreciated the efforts of your staff to keep us informed as various standards changes have been proposed. We understand the difficulty of establishing a single set of criteria to cover all the varying conditions found in the state. We also understand that you are under pressure from various competing interests with differing ideas about how the standards should be changed. This understanding does not however mean that we accept standards that do not fully protect our treaty resources.

Natural Resource staff from the Jamestown S'Klallam Tribe participated in the drafting of a letter to you from the Northwest Indian Fish Commission dated August 7, 2002, outlining a number of technical problems with the standards proposed as of that date. I am in receipt of a copy of your response dated August 29, 2002. This response essentially outlines reasons why few of the concerns raised in the August 7 letter would be acted upon. I will not repeat all of those concerns again at this time. The purpose of this letter is to notify you of several problems with the current proposed standards which will directly affect the Jamestown S'Klallam Tribe and others who share the waters in our Usual and Accustomed Area.

Salmon Recovery: As you are well aware, water quality standards are a critical component of both state and tribal salmon recovery efforts. At a time when the Tribe, assisted by the State and the Federal government, is working hard to protect and restore diminished salmon stocks and their habitats, water quality standards that weaken existing water quality protections are unacceptable. The proposed standards will not effectively protect our salmon resources. Temperature and Dissolved Oxygen standards are of particular concern, as outlined in the August 7 letter. In the Dungeness River, where extensive efforts and resources from the Tribe and from your agency in particular have been spent to recover salmon, we have four early spawning salmon runs: two federally

listed species, chinook and summer chum, and two pink runs which are listed as Critical or Depressed in SASSI. All of these salmon stocks enter the river system to spawn in late summer or early fall when flows are at their lowest and temperatures at their highest. The proposed standards will not protect spawning at these times and places. The temperature and DO standards your Department proposed in December 2001 were more protective, and should be the alternative pursued. Instead, temperature and DO criteria and methodologies have been weakened in the current draft, apparently in order to simplify water quality rules to relieve the regulated community. This must not be done at the expense of water quality protection or salmon recovery. The Tribe has applied for permits for our own restoration projects from your Department. Your objective to streamline the application and implementation of standards is both legitimate and important. However I believe this can best be achieved by improvements in program implementation rather then in the altering of criteria and standards.

Bacteria: We understand that Ecology is under pressure from EPA to change its bacteria standard from fecal coliform to another bacterial indicator. This is of prime concern for the Jamestown S'Klallam Tribe since fecal coliform levels control our ability to harvest shellfish, a treaty protected right. The Tribe has recently lost commercial oyster beds due to non-point pollution in Dungeness Bay, and is at risk of losing other commercial and subsistence harvest opportunities for our Tribal members. We appreciate your decision to maintain some fecal coliform bacterial monitoring in marine waters. However the continued fecal coliform monitoring will only be done in "shellfish harvesting areas." The Tribe must be engaged as government co-managers in the bacterial monitoring determination process throughout the Tribe's U $& A. Of even greater concern is the proposed reduction in the bacteria standard from 50 to 100 in the most protected waters. Even with a standard of 50 in the Dungeness River, we have lost shellfish certification in Dungeness Bay. How can further erosion of the standard to 100 be protective of beneficial uses of the water?

Lack of Implementation Plan: It makes it extremely difficult to understand the implication of standards changes in the absence of clear information on how they will be implemented. It is even possible that some of our concerns about specific standards would be alleviated if it was clear how they will be implemented, and how tribal participation will be incorporated into implementation.

Government to Government Relations: Throughout the proposed revisions there are opportunities to alter standards administratively, such as by changing the use of a water body, or conducting a use attainability analysis. It is essential that the Tribe be involved in ANY decision, which might effectively alter water quality standards governing treaty protected resources. This is consistent with the Centennial Accord and the implementation plan your Department adopted in January 2002, which reads in part "Consultation means respectful, effective communication that works toward consensus before a decision is made or an action taken." I would emphasize the words ***consensus*** and ***before*** in that statement. Merely informing us of a decision already made, or involving us in a process but ignoring our concerns, is not effective government to government interaction.

Our staff has briefed the Tribal Council, and we understand the complex and competing issues surrounding this rule revision process, and the length of time already spent trying to resolve these issues. However the Tribe's view is that as a governmental entity charged with regulating and protecting the states water resources, you must ultimately propose standards which are fully protective of salmon, shellfish and other marine resources.

Sincerely,

Ann E Seiter

Ann E Seiter, Director of Natural Resources

CC: NWIFC
Sandy Johnson, EPA Region 10
Marcia Lagerloef, EPA Region 10
Tom Laurie, Department of Ecology

SAUK-SUIATTLE INDIAN TRIBE 4/2/03

SAH-KU-MEH-HU

"The Root-Digging People"

SAUK SUIATTLE INDIAN TRIBE
5318 Chief Brown Lane
Darrington, WA 98241-9420

360-436-0131
360-435-8366
FAX 360-436-1511

Tom Fitzsimmons, Director
Washington State Department of Ecology
P.O. Box 47600
Olympia, Washington
98504-7600

February 7, 2003

RE: Water Quality Standards Comments Sauk- Suiattle Indian Tribe.

Dear Director Fitzsimmons;

The Sauk- Suiattle Indian Tribe has reviewed the proposed Water Quality Standards for the State of Washington, Chapter 173-201A WAC.

We appreciate the work and involvement that went into this change and welcome the attempt to protect water quality by protecting the resource which we hold dear. We, as a member, of the Northwest Indian Fisheries Commission agree with the comments as provided by the Commission. The following written comments are taken from the consultation between your water quality staff and our Tribal policy and technical staff on March 6, 2003.

The Tribe, has specific comments and concerns about the standards as applied to the Sauk, Suiattle, Cascade Rivers and their tributaries. We consider these rivers to be "ecologically significant" and a major component in Salmon production in the Puget Sound Area. The Skagit River is second to the Columbia in Washington State, in its production and abundance of Salmon and Trout species. The Skagit produces 44% of returning Salmon to Puget Sound. The Sauk, Suiattle, Cascade as the largest tributaries provide the bulk of high quality habitat for a remarkable resource in near natural conditions. In short these streams are high quality waters that exceed, in quality, the standards as proposed for the desired uses. We feel that as it is your intent to describe the desired condition of the aquatic environment in your standards, that only by considering natural conditions in these streams can your goals be met. We , feel that the

As the Tribe has noted in our meeting with Ecology staff on March 6, 2003, implementation of the standard is as critical as what it contains. We have expressed a great deal of frustration in the fragmented method and sometimes circuitous route that the delegated enforcement of the standards to county and city government interpretation produces. We are not confident that Tier II protection as applied currently will be protective of these waters into the future.

Thank you for the opportunity to consult with you on these standards.

Sincerely,

J. Douglas McMurtrie
Environmental Director
Sauk-Suiattle Indian Tribe

CONFEDERATED TRIBES OF THE [redacted]
of the
Umatilla Indian Reservation
Department of Natural Resources
ADMINISTRATION
P.O. Box 638
Pendleton, Oregon 97801
Area code 541 Phone 276-3447 FAX 276-3317

4/2/03

Department of Ecology
Water Quality Program

MAR 14 2003

Dear Tom Fitzsimmons;

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources appreciates this opportunity to comment on the proposed revisions to the Water Quality Standards for Surface Waters of the State of Washington. We firmly believe that the water quality standards of the State of Washington are critically important to the protection of human health and the survival and restoration of our region's once great salmon populations. The Washington Department of Ecology (DOE) may not be aware that the CTUIR has ceded lands and treaty resources within the state of Washington. It is our intention to build our government to government relationship with Washington, to enhance communication and find opportunities for mutual benefit in the protection and restoration of the aquatic resources that support tribal fish populations.

The CTUIR has some important questions and some significant concerns about certain aspects of the proposed Washington standards. On behalf of the Tribe I am formally requesting government to government consultation on the proposed standards before DOE takes any action to finalize the current proposal. We hope that this can be an opportunity for us to better understand DOE's proposal and that we can build better lines of communication and coordination through this consultation.

Background

The CTUIR is governed by a nine member Board of Trustees, which governs or co-manages over 6.4 million acres across northeastern Oregon and southeastern Washington. Members of the CTUIR regularly exercise their treaty rights to fish, hunt and gather throughout the ceded lands. Article I of the Treaty of 1855, on behalf of the CTUIR, provides that CTUIR members shall have the "exclusive right of taking fish in the streams running through and bordering said reservation is hereby secured to said Indians, and at all other usual and accustomed stations. . ." (Treaty with the Walla Walla, Cayuse, Etc., 1855, 12 Stat. 945). The CTUIR is focused on the protection and restoration of water quality and all treaty resources throughout CTUIR territory by using a holistic approach, which encompasses entire watersheds and intends to restore healthy, productive ecosystems. The CTUIR has worked for decades to manage and improve treaty resources, especially fish populations and the health of those populations. Members of the CTUIR exercising the reserved right to practice traditional fishing in all "usual and accustomed" fishing locations must have access to fish that are of high quality and not contaminated with toxic, radioactive or deleterious material which have the potential either singularly or cumulatively to adversely affect human health. Standards

any point in the river. This is consistent with the best science and protection of the beneficial use. Salmon are better protected by spill than by passing through powerhouse screen systems and turbines, which expose them to descaling, impingement, hydraulic pressures, low dissolved oxygen and temperatures that exceed ambient river temperatures.

WAC 173-201A (3)(b) Agricultural Criteria (p 22, 23)
Protection for Agricultural Water Supply should be adopted. In addition protection for tribal fisheries uses should be no less protective. Protection from toxic, radioactive and deleterious materials is extremely important to CTUIR tribal members who are dependent on subsistence, ceremonial and commercial fishing. Standards that protect public health from crops contaminated with water containing toxic, radioactive or deleterious materials must also protect tribal members, subsistence and ceremonial fishers from fish tissue contaminated with water containing toxic, radioactive or deleterious materials. The CTUIR recommends that the DOE develop standards to protect the water supply for tribal fisheries such that both Tribal members, with higher consumption rates, and non-Indian consumers are fully protected. These regulations should be developed in consultation with tribal governments and with EPA.

WAC 173-201A 240 Toxic substances (p 29)
Tribes, including the CTUIR, are newly developing information and staff programs to characterize and deal with the potential threats posed to tribal member health, and the health of fish populations, by toxic substances that reach the rivers of our region. The CTUIR Board of Trustees has identified the issues surrounding toxics as a top priority for development of tribal capacity, better information and development of toxics guidance sufficient to protect tribal members and tribal fish populations.

Unfortunately, the CTUIR has not yet had the time to develop sufficient capacity to fully understand the implications of the DOE standards for toxic substances. The CTUIR formally requests that our government to government consultaion with the DOE include discussion of the standards for toxic substances so that the tribe can better understand the standards and can then meaningfully develop comments on these standards with full understanding of the implications of these toxics standards.

WAC 173-201A-260 (2) Natural and irreversible human conditions (p 35, 36)
The CTUIR formally requests clarification about the specific process and analysis that must be done by the WA Department of Ecology to establish "alternative estimates of the attainable water quality conditions" when a waterbody does not meet its assigned criteria due to "human structural changes that cannot be effectively remedied." Evaluations done for changes to water quality criteria should be done on a site specific basis since the significant sources of impairment and controlling factors often vary considerably from site to site and water to water. What are the Washington minimum requirements of what constitutes an adequate demonstration that natural conditions are of a lower water quality than a given water quality criterion? The Tribe requests information about these requirements.

uses shall be allowed." Addition of this statement could be incorporated with the proposed statement WAC 173-201A-300 (1).

WAC 173-201A-320 (4) Proposals that would degrade existing high quality waters
Part (4) (a) of this section describes the statement of benefits and costs of a proposed action that would degrade high quality waters. The CTUIR is concerned that these sorts of economic analyses are often skewed in favor of allowing new sources of pollution, and that they undervalue the economic benefits of protecting the few remaining areas of high water quality. Although there can be economic benefits associated with a lowering of water quality, the benefits are generally only enjoyed by small, specialized component of the total economy. Most often the values that come from high water quality are discounted since they are not as likely to have readily available predictions of the numbers of jobs or annual profit that is supported by high water quality, etc. The proponents of additional pollution are not likely to conduct such an analysis objectively if at all. If DOE proposes that the economic benefits of allowing new sources of pollution will be a factor in decision making, it is the Department's responsibility to ensure that a fair analysis of the social and economic values of the maintenance of high water quality is considered just as seriously.

WAC 173-201A Mixing Zones (p 44)
Mixing zones for persistent bioaccumulative toxins (PBTs), which can cause significant ecological damage when introduced into the environment in any concentration, should not be allowed. Mixing zones for PBTs should be banned to protect human and wildlife health. In addressing this comment, please consider the results of the EPA Columbia River Basin Fish Contaminant Survey, 2002.

The mixing zone regulations allow for large areas of a river to be further degraded. The Tribe is particularly concerned about the cumulative contribution of heat in mixing zones where the given water body is already exceeding standards. According to the standards, mixing zones can be more than 300 ft long and occupy up to 25% of the stream width. In a small and/or slow moving stream a 300 ft long discharge could be an enormous burden on aquatic life, especially if the water already exceeds standards. In a river such as the Columbia, a discharge of 25% of the stream width would allow a huge thermal load in a river that is already critically, sometimes lethally hot for salmonids. The criteria expressed in the mixing zone section say nothing about the temperature of the water receiving the discharge. The area and volume of a water body must be considered when setting mixing zone regulations. If a water body exceeds water quality standards, then a mixing zone for the pollutant in exceedence should not be allowed. The Tribe understands that this change in water quality standards will require substantial compliance requirements on some current dischargers. The DOE should work with such facilities to develop and enforce compliance schedules. To do otherwise will condemn the rivers to cumulatively increase the pollution load, increasing exceedances of water quality standards and criteria.

WAC 173-201A-420 Variance (p 51)

improvements to dams that are complex, long term, expensive, or that would require new government approval, change of priorities or authorizations are not necessarily unreasonable or infeasible. In addition, such evaluation of potential improvements to dams must be specific to each particular dam in question because impacts to water quality, characteristics of dam structure, operations, reservoirs, as well as power and economic considerations can vary from dam to dam. It may be that further articulation of requirements for analytical methods in (5) (b) (iv) could serve to clarify the type of demonstration needed.

The Tribe requests consultation with the DOE and EPA about specifically what will be required to demonstrate that meeting water quality standards is not attainable. If the determination that "meeting the standards is not attainable" in section (5) (b) (ii) is an approach to adopting subcategories of uses specified in section 101(a)(2) of the Clean Water Act, then a Use Attainability Analysis must be conducted to determine the attainable uses of a water body or section of a water body.

The CTUIR requires additional clarification of the requirement in (5)(b)(vi) of benchmarks and reporting sufficient for the DOE to track progress. We are concerned that further articulation of this requirement is necessary to truly implement the water quality attainment plan. The Tribe recommends that an implementation schedule be required and tracked with check-in on no less than a yearly basis. We understand that some flexibility is required in regard to funding acquisition and appropriate needs for modifications to plans. However, the Tribe is concerned that if the plans do not have requirements throughout the 10 year process that are traced closely, then these water quality attainment plans will simply be another plan that is created solely to fulfill another paper work requirement and will not be meaningfully implemented. The attainment plans must be a tool to accomplish implementation of water quality standards, not an indefinite allowance of water quality standard exceedence. In addition the CTUIR believes it is necessary for DOE to specify how progress will be defined. Loose definitions of progress have allowed dam operators to make little to no progress in improving the water quality impacts of dams in other federal processes. The DOE should consult with tribes on the specific actions and schedule to meet standards that are required for each dam.

In section (5)(g) there are only two possible outcomes if applicable water quality standards are not met by the end of the attainment plan schedule; more planning and technologies or Use Attainability Analysis. While the CTUIR understands that the current policy of the Governor and state of Washington in 2003 does not support dam removal, we object to the state's short sighted institutionalizing in its water quality standards the limitation that under no future circumstances might dam removal be an appropriate action.

There are many dams and water quality problems caused by dams throughout the state of Washington. To exclude dam removal under any circumstances from consideration would be arbitrary and unfair to many other stakeholders who are land and water users impacted (sometimes significantly) by water quality implementation requirements. Basin

The Tribe appreciates the opportunity to comment on the Water Quality Standards for Surface Waters of the State of Washington. The CTUIR has also requested consultation with EPA about the Water Quality Standards for Surface Waters of the State of Washington and hopes to work closely with the Washington DOE to resolve our concerns and questions. Please feel free to call Rick George (541-966-2351) or Kathleen Feehan (541-966-2357) of my staff if you have any questions about our comments. The Tribe looks forward to resolving our concerns in a constructive manner with the DOE. The CTUIR also hopes that the Tribe and DOE can partner in efforts to protect and restore water quality in the Columbia Basin. We thank you for your consideration of our comments.

Respectfully,

Michael J. Farrow

Michael Farrow
Director of the Department of Natural Resources

cc: Marcia Lagerloef, EPA
Tom Eaton, EPA
Susan Bradley, WDOE
Bob Lohn, NMFS
Donald Sampson, Exec. Director CRITFC
Kathleen Feehan, Aaron Skirvin, Gary James, Carl Scheeler

Done on 4/2/03
WILLAPA BAY WATER RESOURCES
COORDINATING COUNCIL – M JOHNSON

WILLAPA BAY
WATER RESOURCES
COORDINATING COUNCIL
P.O. Box 6
South Bend, Washington 98586 Courthouse
South Bend 875-9384 Long Beach 642-9384 Naselle 484-7136

Department of Ecology
Water Quality Program
MAR 07 2003

March 4, 2003

Susan Braley
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Ms. Braley

On behalf of the Willapa Bay Water Resources Coordinating Council (WBWRCC), I would like to express our concerns and opposition to the Washington State Department of Ecology's, newly proposed water quality standards. We feel the standards are far to stringent, unrealistic and in many cases unattainable for the citizens of Washington State.

The water quality standards being proposed by the Department of Ecology are not based upon the best available science. The temperature standards are exceedingly restrictive and are based upon modeling of optimal laboratory conditions. Salmonids and other aquatic species do not exist in controlled environments, so why base the majority of your scientific studies, or the lack there of, in a constant and controlled setting? Some of the states water bodies cannot meet the proposed standards under natural historic conditions. The dissolved oxygen standards are also overly restrictive and do not provide meaningful improvements to the protection of fish and other aquatic species. The Department of Ecology's standards also surpass federal requirements for dissolved oxygen. Landowners cannot be expected or further regulated to reach controlled laboratory conditions that are naturally unattainable.

The water quality standards being proposed by the Department of Ecology are based on a blanket approach to the waters of the State. This approach again is unreasonable and in many cases unattainable. It is unrealistic to require the same water quality standards throughout a watershed. Water temperatures and dissolved oxygen levels can be highly variable between the headwaters and the mouth of a stream. Water temperatures and dissolved oxygen levels are also highly variable due to elevation and or geographical changes. Where rivers originate the waters are much cooler than at the mouth. The same scenario occurs with dissolved oxygen, cooler water equals higher levels of dissolved oxygen. Since water temperature and dissolved oxygen levels are variable throughout a

system, we feel the standards should be equally variable to best represent the particular reach of each water body. We strongly urge the Department of Ecology to reconsider the uniform, blanket approach that is being proposed to set future water quality standards for the State.

Landowners throughout the state of Washington face more stringent and onerous regulations each year. Local landowners who utilize natural resources implement management practices year after year to improve the quality of our natural resources, while the price of their products continue to plummet. Everyone across the state of Washington strives for clean water, but at what cost? Look at how much water quality has improved over the past twenty years. Are further regulatory mandates necessary or should we look more towards natural historic conditions and set water quality standards on those criteria. No one is suggesting we eliminate water quality standards, we simply ask that the standards be realistic and attainable to the citizens of Washington. Thank you for your time in addressing our concerns.

Sincerely,

Mike Johnson, Coordinator
WRIA #24, Lead Entity

Done on 4/2/03
WA GROWERS CLEARINGHOUSE ASSN
KIRK MAYER

Washington Growers Clearing House Association
1505 North Miller Street, Suite 260
P. O. Box 2207
Wenatchee, Washington 98801
Phone: 509-662-6181; Fax: 509-664-6670

March 4, 2003

Susan Braley
Water Quality Standards Unit Supervisor
Washington Dept. of Ecology, Water Quality Program
P.O. Box 47600
Olympia, WA. 98504-7600

Subject: Proposed Changes to Surface Water Quality Standards, WAC 173-201A

Dear Susan Braely,

The Washington Growers Clearing House Association is a grass roots tree fruit grower association with approximately 2,200 Washington tree fruit grower members. Policies and activities are established by a tree fruit grower board of directors, which are elected by their peers.

Due to the complicated and incomplete nature of the data and processes that supposedly support the proposed changes in Washington Water Quality Standards it is virtually impossible to evaluate the potential impacts scientifically, economically and environmentally of the proposed changes.

First it is hard to understand why the Dissolved Oxygen and Water Temperature standards are defined mostly by salmonids. If Dissolved Oxygen and temperature are as important as the Department of Ecology indicates, such high coldwater standards will jeopardize the existence of warm water fish and aquatic life, leading to the eventual future ESA listings of warm water species of fish and aquatic life. Any dissolved Oxygen and Temperature standard must balance the needs of both cold water and warm water fish. The current proposal does not recognize the balancing act that currently takes place in nature. Scientific studies have demonstrated that salmonids are very adaptive and can survive a broad range of temperature and oxygen conditions that extend well below the proposed standards. Many of the untouched portions of Eastern Washington Rivers and streams will not meet the stringent requirements of the proposed water quality standards, yet significant salmonid runs survive and grow in those areas, demonstrating that nature does not recognize the need to provide the optimal conditions for salmonids as outlined in this proposal. The safety margins outlined are significantly higher than that shown by science and nature to be necessary. Such a high margin of error places unjustified economic hardships on landowners with little or no benefits to fish. In the case of the bull trout criteria no supporting quantitative science is provided, yet a higher safety margin is required.

The primary justification for revising the Water Quality Standards is to take into account the "latest scientific information". Yet an integral part and justification for the Department of Ecology revisions is the "Multiple Lines of Evidence" (MLE), which is based on judgments, not peer reviewed science. To further complicate things, insufficient information about MLE is provided in the proposal so that any scientific evaluation or duplication of findings can occur. In addition, such a provision provides the State and the Department of Ecology (DOE) with no incentive to seek or fund quantitative scientific efforts to determine what is the most cost effective means to protect and enhance fish runs. Developing science to determine the most cost effective means of protecting fish is "in the public interest". Using the MLE approach is substituting some unknown individuals judgment for scientific evidence and data. It should also be noted that DOE does not recognize the value of MLE, due to the fact they do not use the same criteria in the Use Attainability Analysis (UAA) to determine valid variances.

In the Small Business Economic Impact Statement Chapter 173-201A WAC, Appendix C it mentions the Forest Practices shade manual was used to determine the additional percent shade that would be needed to meet the 1 degree C increase for class A streams. It also mentions that in Eastern Washington any Class A stream at less than 2100 feet elevation needs 100% shading to have a chance of meeting that criteria. Most Eastern Washington Class A streams have a significant portion of their area located in dessert regions below 2100 feet. In a dessert region 100% shading is not possible. Temperatures etc. established utilizing forest science is not applicable to Eastern Washington. Water temperature standards will not be met in Eastern Washington due to natural causes. As a result Eastern Washington dessert regions will be held to a higher standard. The Agricultural Fish & Water Task Force (AFW) Agricultural Caucus has presented scientific evidence supporting the differences between forest science and Eastern Washington conditions, to DOE. It appears DOE has ignored this important scientific review.

The revisions as proposed will create severe economic hardship by significantly reducing and/or eliminating the function and utility of a landowner's property, especially in rural areas. In addition to rural landowner impacts, County governments that depend on property tax revenues will be left with significant state mandates and greatly reduced revenue. Current and future job opportunities will be lost. Such a plan is contrary to Governor Locke's Rural Economic Development goals. The Small Business Impact Statement states "for any waterbody reaches affected by the proposed changes, and for which no variance, flexibility, or offset is possible, the proposed amendments would have a disproportionate impact on small business. "

The proposal allows variances when "in the public interest", or would cause "severe economic hardship to the public", yet public interest or public hardship is not defined. At the Wenatchee public hearing the DOE representative responded to a question as to how public interest is determined, stating that the local stakeholders would make that determination. Such a comment is very naïve and gave those in the audience the impression that they would make the ultimate decisions. In the past, such environmental/economic public interest issues have not been decided by local input but by non-elected state officials, state & federal special interest groups and/or the courts. An Eastern Washington farm, or irrigation district in rural Washington has little chance of demonstrating it's survival is in the "public interest".

On page one of the Small Business Economic Impact Statement it mentions, "Cost minimizing features have been provided in the rule". The two primary landowner mitigation tools are mentioned in Appendix C of that Impact Statement, as the Conservation Reserve and Enhancement Programs (CREP) and Environmental Quality Incentives Program (EQIP). However, it fails to recognize that the number #1 agricultural crop in Washington State (Tree Fruit) does not qualify for CREP funding. (Despite three years of urging by the state and the tree fruit industry.) Nor does it mention that applications for EQIP funding last year were minimal yet the available funds did not meet the demand. Willing and interested applicants were turned away. Applications for EQIP funds this year are three times higher than last year, with minimal increases in funding, guaranteeing that most applicants will not get funded. However, enforcement of the water quality standards will not have the ability to be so selective. It also should be noted that tree fruit growers wishing to reduce their water consumption by improving their irrigation systems via EQIP programs have been turned down because the improvements were not environmentally significant. Allowances for such determinations are not factored into the proposed revisions. Small rural minor crop landowners such as tree fruit growers will be impacted the significantly while at the same time not have access to funding tools or have the ability to demonstrate its survival is "in the public interest" or its loss is a "severe economic hardship to the public". The end result will be the further erosion of the state rural economy and a more pronounced Cascade Curtain effect.

Further, a through Cost Benefit Analysis needs to be competed and reviewed by the state and the citizens of Washington State before any rule changes occur. It is premature to evaluate the proposal without first having a through comprehensive evaluation of the potential economic and environmental impacts of this proposal.

In conclusion it is critical that revisions to the Washington State water quality not be done until:

1.) The soon to be released United States Environmental Protection Agency (EPA) revisions to Pacific Northwest water quality parameters can be reviewed and incorporated into the proposal.
2.) The state has incorporated revisions to the proposed water quality standards that balance the needs of salmonids, warm water fish and warm water aquatic life.
3.) A Cost Benefit Analysis has been completed.
4.) More clearly define all the components to ensure consistent implementation. (Example: Define how to determine "in the public interest" and "severe economic hardship to the public".)
5.) The state and public have the opportunity to review the Cost Benefit Analysis and the proposed changes made as a result of comments, various reviews and revisions.

Thank you for the opportunity to comment.

Sincerely,

Kirk B. Mayer, Manger

Done on 4/2/03
YAKIMA RIVER BASIN COMMODITY
STEVE GEORGE

Yakima River Basin Commodity Coalition

301 W Prospect Place ♦ P O Box 1207 ♦ Moxee, Washington 98936
Phone: 509-453-4749 ♦ Fax: 509-457-8561
Email: steve@wahops.org

Department of Ecology
Water Quality Program

MAR 05 2003

March 3, 2003

Susan Braley
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Response to Department Water Quality Standard Revisions

Dear Ms. Braley:

Our organization commissioned an analysis of Ecology's proposed water quality standards by John Pizzimenti, Ph.D. with GEI Consulting in Portland Oregon. Dr. Pizzimenti has participated in watershed and fisheries issues throughout the Western United States. A copy of his full response is enclosed.

Dr. Pizzimenti has indicated your proposal is very biased and subjective toward fisheries interests, using species that may not even be present as a tool to set an arbitrary regulatory level for water quality purposes. He notes "A species does not have to be present in a particular stream, but only have the "potential" for such use." Your dissolved oxygen standard is not justified by scientific evidence, and your temperature proposals are even more restrictive than our current standards based on the most stringent level that could be conceived.

We are very concerned that this proposal is so environmentally biased. We had hoped your efforts would have followed legislative and executive recommendations to streamline, simplify and clarify regulations. However, it is our opinion your current document has complicated, confused and increased the amount of regulatory activity your agency will administer.

Our water quality standards are not lacking, only the enforcement of current regulations by your department is lacking. Forcing these additional regulations upon the citizens of this state only serves to further limit their ability to exercise public and private rights associated with living and doing business in this state.

Specifically this proposal is flawed in the following areas:

1. Temperature: The proposal takes away known standards and substitutes a subjective alternative with a more restrictive threshold level. As the basis for

the level is subjective, it is highly questionable that the standard will be administered in an unbiased manner. Potential regulatory levels will unnecessarily negatively impact citizens of the state.

2. Dissolved Oxygen: The dissolved oxygen standard in the water column is elevated to levels 1.5 mg/l higher than needed by the spawning fish in order to assure an inter-gravel standard of 8.0, that may not be fully justified by scientific evidence. Thus, the standard will be 9.5 mg/l. which may be higher than the existing standard.

3. Bacteria Criteria: We would agree that EPA's interest in new criteria is not justified and support your assessment that the current fecal coliform standard is adequate to address bacterial concerns.

4. Agricultural Water Supply Criteria: A department oversight committee was established in 1994 and operated through 1996. In general the committee was not supportive in creating additional regulations in this area. Their rationale was that agricultural water quality is extremely high throughout the state, therefore there was no need for further regulation. Your department's position that agricultural water needs further protection appears to be unwarranted. *In reality, your proposal for agricultural water quality could put limitations on water used for this purpose, which appears to meld with your other bias toward fisheries interests.*

Thank you for this opportunity to provide input. For the most part, we do not support your proposed regulations. I would suggest you convene a stakeholder committee to work with you on coming up with regulations that address real issues, and at the same time do not put additional unwarranted burdens on Washington State citizens. These participants would need the ability to have expert consultation services at their disposal, paid for by the state.

Please feel free to contact me if you have any questions.

Sincerely,

Steven E. George
Administrator

c. Governor Gary Locke
Jim Waldo
Central Washington Legislators
Association of Washington Business
WA State Farm Bureau
Agricultural Organizations

Done em 4/3/03

FOSTER PEPPER & SHEFFELMAN PLLC

ATTORNEYS AT

1111 *THIRD AVENUE, SUITE* 3400
SEATTLE, WA 98101
FAX: (206) 447-9700
PHONE: (206) 447-4400

FACSIMILE TRANSMITTAL SHEET

March 7, 2003

TO:	FAX NUMBER:	VOICE CONTACT:	VOICE CONFIRM:
Susan Braley	(360) 407-6426	(360) 407-6414	

From: Patrick J. Schneider
Direct Dial: (206) 447-2905
Direct Return Fax: (206) 749-1915

Attachments: Letter w/ Attachments

Number of Pages (Including this cover page): 18

User & Client/Matter Number: 5764 51156-41

Return to/Location: 34-65

Message:

IF YOU HAVE QUESTIONS REGARDING THE TRANSMISSION OF THIS FAX, PLEASE CONTACT THE FAX DEPARTMENT AT (206) 447-2903

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FOSTER PEPPER & SHEFELMAN PLLC
ATTORNEYS AT LAW

Direct Phone
(206) 447-8971

Direct Facsimile
(206) 749-1927

E-Mail
dijap@foster.com

March 7, 2003

VIA FACSIMILE & U.S. MAIL

Ms. Susan Braley
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Ecology's Request for Comments on Proposed Water Quality Standards Revisions: Comments of Klickitat and Skamania Counties on Proposed Water Quality Standards - Condit Dam Hydroelectric Project

Dear Ms. Braley:

This firm represents Klickitat and Skamania Counties (the "Counties") who are parties to a Federal Energy and Regulatory Commission ("FERC") relicensing proceeding for the Condit Dam in the State of Washington (FERC Project No. 2342-011). On January 30, 2003, Don Struck, Klickitat County Commissioner, outlined in testimony the Counties' opposition to specific provisions in the proposed State Water Quality Standards ("State Standards") designed to facilitate removal of Condit Dam. Commissioner Struck also outlined the Counties' concerns regarding the integrity of the Washington State Department of Ecology's ("Ecology's) rulemaking process. The Counties' outlined, in great detail, how Ecology's back door negotiations and collaboration with PacifiCorp ("PC"), resulted in proposed changes to the State Standards that will permit PC to implement its preferred blow and go method of dam removal. PC's preferred dam removal plan will result in the release of over 2.4 million cubic yards of sediment into the Lower White Salmon River without adequate environmental safeguards.

In response to pressure from PC, Ecology has proposed several amendments to the State's Water Quality Standards that are clearly inconsistent with Section 303(c) of the Clean Water Act and State law, i.e., Chapter 90.54 RCW. Ecology and PC have crafted exceptions to State Standards for dam removal and other activities that leaves the door open for the unmitigated destruction of existing beneficial uses in Washington's rivers and streams. Despite Ecology's stated position to the contrary, the Clean Water Act's goal of restoring the nation's waters does not sanction the unmitigated destruction of existing beneficial uses even where some uncertain long-term benefit may result. Ecology should withdraw proposed rule

1111 THIRD AVENUE
Suite 3400
SEATTLE
Washington
98101-3299

Telephone
(206)447-4400
Facsimile
(206)447-9700
Website
WWW.FOSTER.COM

ANCHORAGE
Alaska

PORTLAND
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Washington

SPOKANE
Washington

language that creates a double-standard of water quality protection for dam removal projects and adopt an antidegradation policy that is consistent with minimum protections afforded by State and federal law.

Ecology is Proposing a Double Standard of Lesser Environmental Protection for Dam Removal Projects.

Ecology is attempting to carve out an exception for dam removal projects that is inconsistent with strict water quality standards and regulatory burdens that are imposed on the agricultural community and hundreds of other businesses and industries in Washington State. Crafting rules that would allow the unmitigated release of 2.4 million cubic yards of sediment into the Lower White Salmon and Columbia Rivers is without precedent. Ecology has a long history of pursuing violations of discharge standards that are far less egregious than what the agency is prepared to permit here. The broad exception envisioned by PC and Ecology will apply statewide to other hydroelectric projects and other yet undefined "restoration activities." Environmental restoration is a laudable goal. However, Ecology has been led to believe by PC that there are instances where restoration cannot be achieved without allowing significant degradation of existing water quality or "short-term" destruction of existing beneficial uses. This rationale is flawed.

First, in the case of Condit Dam, the applicant can provide sufficient environmental mitigation by deferring project removal until such time as project funds are available to implement appropriate mitigation. Second, Ecology is proposing a loophole standard that will allow certain private entities to avoid mitigation responsibilities simply by choosing arbitrary timeframes that create some financial hardship that prohibits the implementation of appropriate mitigation. In the case of Condit Dam, Ecology is going far beyond its statutory responsibilities to bail out a multi-national entity that may or may not find itself in an unfortunate financial/business predicament. After benefiting from the operation of Condit Dam for nearly a century, at the environment's expense, PC is now asking Ecology to adopt a rule that assures that PC will not have to bear the cost of complying with State Standards designed to protect water quality for species that utilize Northwestern Lake and the Lower White Salmon and Columbia Rivers.

Ecology should not adopt a double standard for PC, or adopt a double standard for environmental restoration projects. The adverse impacts of sediment discharges on water quality should be regulated in the same manner regardless of the project purpose. Ecology does not, for example, carve out exceptions for discharges from municipal waste water or stormwater projects even though those projects or operations are clearly in the public interest and provide substantial public benefit.

The Rulemaking Process was Compromised by Ecology's Collaboration With PacifiCorp

The rulemaking procedures in the Administrative Procedures Act outline a specific process whereby interested parties can effectively and equitably participate in the rulemaking process. Unfortunately, in this case, Ecology failed to meet that standard and has allowed a private corporation, PC, to influence this rulemaking process to further PC's agenda as well as Ecology's own agenda. Specific proposed changes to the State Standards were developed and negotiated behind closed doors between Ecology, PC, and other dam removal supporters. The documents submitted by the County during the January 30, 2003, public hearing (attached) clearly illustrate this fact. The threshold question that the County has been asking for some time on the Condit Dam removal project is whether Ecology's signing of the Settlement Agreement and its dual responsibility as a permitting agency can be carried out in a fair and unbiased manner. Based on the County's review of public records in Ecology's offices, it is clear that Ecology has prejudged the outcome of the Condit Dam project, prejudged the outcome of the SEPA process, and prejudged the outcome of the related 401 and NPDES permit processes. The Department's earlier representations to the Klickitat County Commissioners that Ecology's work would be done in a "open and transparent way" rings hollow.

In June of 1999, PacifiCorp sent a letter to Ecology stating "significant rulemaking actions by Ecology will be necessary to facilitate permitting for Project Removal." Just seven days later Ecology's representative responded "I have advised the Ecology Water Quality Program to modify or adopt new regulations to accommodate this project." "Ecology staff are aware that current regulations may not permit the proposed removal." What is even more disturbing to the Counties is that the documents clearly show that PC's own attorney drafted proposed rule changes, and met with Ecology staff extensively to refine the proposed language. Is this open and transparent rulemaking or decisionmaking?

Proposed Changes to the State Water Quality Standards are Inconsistent With Federal Law

The proposed language in WAC 173-210A-410(3) is vague and inconsistent with federal antidegradation standards. The following is an excerpt from the applicable federal antidegradation regulations:

> (a) The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation methods shall, at a minimum, be consistent with the following:

> (1) Existing instream water uses and level of water quality necessary to protect the existing uses shall be maintained and protected.
>
> ***

40 CFR § 131.12.

Federal rules allow for limited exceptions to the federal mandate to protect existing instream uses. In instances where the quality of waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, a state may adopt an antidegradation policy that allows for a lowering of water quality to accommodate important economic or social development in the area in which the waters are located. *See* 40 CFR § 131.12. Even where social and economic justifications permit the lowering of water quality, a state must "assure water quality adequate to protect existing uses fully." 40 CFR § 131.12.

The United States Supreme Court has recognized that the federal antidegradation policy requires that "[s]tates must implement their antidegradation policy in a manner consistent with existing uses of the stream...." *Pend Orielle County v. Department of Ecology*, 146 Wn.2d 778, 811, 51 P.3d 744 (2002) (quoting *Public Utility District No. 1 of Jefferson County v. Washington Dep't of Ecology*, 511 U.S. 700, 718, 114 S.Ct. 1900, 128 L.Ed.2d 716 (1994)). The Court noted that the Environmental Protection Agency ("EPA") has interpreted its antidegradation regulation in a way such that "no activity is allowable... which could partially or completely eliminate any existing use." *Pend Orielle County*, 146 Wn.2d at 811 (citing *PUD No.1 of Jefferson County*, 511 U.S. 700, 718 (1994)).

Ecology is proposing an exception in the State's antidegradation policy for "major watershed restoration activities that will provide greater benefits to the health of the aquatic system in the long-term (such as removing dams...) which, in the short term may cause significant impacts to designated uses...." Proposed WAC 173-210A-410(3). The proposed rule is vague and inconsistent with the federal antidegradation mandate regarding minimum protection of existing uses. The phrases "major watershed restoration activities," "short term," and "significant impacts" are not defined in the proposed rules. No minimum level of protection for existing uses is provided despite a federal mandate to the contrary.

The result of the back-door collaboration with PC is proposed changes to the State's Antidegradation Policy that would allow the unmitigated release of 2.4 million cubic yards of sediment and debris from behind Condit Dam without adequate environmental safeguards. An attempt to classify the Condit dam blow and go method of dam removal as a "major watershed restoration activity" having short-term impacts is at best, a stretch. Sediment released from behind Condit Dam "would be lethal to all life stages of anadromus and nonanadrmous species and macroinvertebrates in the river downstream of the dam." Condit FSFEIS at 112. The

FSFEIS also states that periodic sediment spikes over the course of two years after the initial blasting of the dam would be lethal to or displace all fish species in the White Salmon River and in the Columbia River near the mouth of the White Salmon River. Condit FSFEIS at 112. The record shows that PC itself has expressed concern that the phrase "major watershed restoration activity" may not describe their Condit proposal. PC knows its decision to remove Condit dam is a business decision first and foremost and not a PC sponsored watershed restoration activity.

Proposed Changes to the State Water Quality Standards are Inconsistent With State Law

Ecology's proposed language in WAC 210A-410(3) is also inconsistent with minimal levels of water quality protection afforded by State statute. RCW 90.54.020(3) provides:

> Notwithstanding that standards of quality established for the waters of the state would not be violated, wastes and other materials and substances shall not be allowed to enter such waters which will reduce the quality thereof, except in those situations in where it is clear that overriding considerations of the public interest will be served.

RCW 90.54.020(3)(b).

The proposed State Standards exempting watershed restoration projects and dam removal projects would allow a deterioration of water quality with no baseline level of minimum protection. Furthermore, the Counties doubt that Ecology can articulate defensible reasons why it is in the "overriding public interest" to allow the unmitigated release of over 2.4 million cubic yards of sediment into a river segment that contains listed species and is included in the Columbia River Gorge Scenic Area.

The statute also provides that regardless of the quality of the waters of the state, all wastes and other materials and substances proposed for entry into state waters shall be provided with all known, available, and reasonable methods of treatment ("AKART") prior to entry. See RCW 90.54.020(3)(b). No meaningful AKART measures have been proposed by the applicant to mitigate the release of over 2.4 million cubic yards of sediment. Given Ecology's stated commitment to the blow and go method of dam removal and commitment to the mitigation cost cap in the Settlement Agreement, it is highly unlikely that the agency will impose meaningful permit conditions to protect water quality.

In conclusion, Ecology is faced with an obvious dilemma. It felt compelled to sign the Settlement Agreement in which it committed to PC's preferred blow and go method of dam removal. Ecology also negotiated and committed to specific mitigation cost caps before a permit

application was ever submitted to Ecology and before the associated State Environmental Policy Act ("SEPA") process was even completed. Ecology is further compromising its integrity if it adopts vague standards that violate federal law and compromise the protection of water quality in Washington's rivers and streams. The Counties urge Ecology to withdraw the proposed rule provisions that create a double standard of water quality protection for environmental restoration projects. Ecology should also delete reference to dam removal as a de facto "watershed restoration activity" that "provides greater benefits to the health of aquatic systems in the long-term." Finally, Ecology should refrain from using other provisions of the State's Standards to sanction the release of 2.4 million cubic yards of sediment into the Lower White Salmon River.

Very truly yours,

FOSTER PEPPER & SHEFELMAN PLLC

P. Stephen DiJulio

cc: Marcia Lagerloef, U.S. Environmental Protection Agency, Region X
Timothy O'Neill, Klickitat County Prosecuting Attorney
Peter Banks, Skamania County Prosecuting Attorney
John Whittaker, Winston & Strawn
Michael B. White, Director, Civil Works and Management, U.S. Army Corps of Engineers
Robert Brown, U.S. Army Corps of Engineers, Seattle District

STOEL RIVES LLP
ATTORNEYS
ONE UNION SQUARE
600 UNIVERSITY STREET, SUITE 3600
SEATTLE, WASHINGTON 98101-3197
Phone (206) 624-0900 Fax (206) 386-7500
TDD (206) 628-6202
Internet: www.stoel.com

RECEIVED
JUN 24 1999
ATTORNEY GENERAL'S OFFICE
Ecology Division

To Blau

June 23, 1999

MICHAEL P. O'CONNELL
Direct Dial
(206) 386-7692
email mpoconnell@stoel.com

Mr. Mark C. Jobson
Assistant Attorney General
State of Washington
Department of Ecology
P.O. Box 40117
Olympia, WA 98504-0117

Re: Department of Ecology Issues Relating to Permitting for Condit Project Removal

Dear Mark:

As you know, I have been trying to find a letter from you dated last year, possibly around May, relating to Department of Ecology (Ecology) permitting issues that may be involved in removal of the Condit Hydroelectric Project. While I have been unable to find a letter, attached is a two page document which I believe you prepared in response to discussions I had with Tom Luster relating to permitting issues which may be involved in removal of the Condit Project.

The draft Condit Settlement Agreement includes a provision allowing withdrawal in the event permits necessary to Project removal cannot be obtained in a timely manner. Among the more important issues in that regard is Ecology's water quality standards rules which may affect both state permits and water quality certifications(s) for federal licenses and permits that may be necessary for Project removal. To ensure that the Ecology's water quality standards rules are adequate for these purposes, you proposed that Ecology adopt a rule allowing longer term water quality modifications for activities which have as their goal restoration of a stream or river, and I might add fishery resources, than may be authorized under Ecology's current rule for short term water quality modifications. As we also have discussed, other requirements, such as AKART and Ecology's antidegradation policy, also need to be considered in connection with permitting actions, as appropriate.

DOE 0911

STOEL RIVES LLP

Curt Smitch, Will Settle and Bob Anderson became directly involved in the Condit Project removal negotiations after you provided me with your water quality standards rule change proposal. PacifiCorp believes it is important to advise Curt, Will and Bob that significant rulemaking actions by Ecology will be necessary to facilitate permitting for Project removal. To that end, I request that you confirm that you provided the attached document to me so that PacifiCorp can advise Curt, Will and Bob of your proposal.

If you have any questions or comments, and if you can locate a transmittal letter further addressing these issues, please call me at my number above.

Sincerely,

Michael

Michael P. O'Connell

MOC:dja
Enclosures

CONDIT DAM REMOVAL PLAN

Department of Ecology Permits w/ relevant cites

1. Water Resources Contact; Jeff Marti, Ecology HQ
   A. Abandonment, or transfer of existing Pacificorp rights.
   Right to divert
   Right to store
   RCW 90.14.160 Abandonment If Pacificorp voluntarily gives up its right to store and divert, then the right reverts to the state and the water becomes available to other appropriators both upstream and down.
   RCW 90.42.080 Trust Water Rights Program.
   The state prefers to acquire Pacificorps" existing water rights by donation to the trust in order to preserve the priority date of the rights so that they may not be impaired by later filed applications for withdrawal.
   B. Impacts on other existing rights. Survey and analyze.
   I am aware of only two existing surface water rights in the project area which could conceivably be impacted by dam removal. These are: 1. Mt. Adams Orchards, which maintains a pump at or near the dam, and 2. An unknown diverter below the dam. I do not yet know what impact dam removal has on these diverters if any.
   C. Impacts on instream flow
   Since the project is "run of the river," dam removal should have no impact on instream flow below the dam. Flow will increase in the existing bypass reach.

2. Water Quality Contact: Bob Barwin, Ecology CRO
   A. NPDES Permit RCW 90.48.
   The CWA and state Water Pollution Prevention Act require that Ecology regulate industrial and municipal point source discharges through NPDES permits. The program states that "no pollutants shall be discharged to any survade water of the state from a point source, except as authorized by an individual or general permit." WAC 173-220-020. The permit includes effluent limits and requires that the effluent not violate water quality standards of the receiving water.
   Issues:
   1) Point source
   2) Pollutant
   3) Discharge
   4) Effluent
   5) applicable standard
   6) is the program superceded by Section 404 permit and 401 Certification.
   B A. Short-term water Quality Mod. WAC 173-201A-110 and -070.
   The regulation says:
   C B. Adoption of Rule for Restoring Habitat by Removal of Structures (Dams)
   Propose that Ecology draft and adopt a rule allowing longer-term water quality impacts when they are a consequence of restoring a stream or river to its natural condition. One statute already recognizes the need to short cut the permit process in order to benefit riparian

habitat, especially where salmon are concerned. RCW 89.08.460; "Watershed Restoration Projects." Can this removal be done as a "watershed restoration project?" See 89.08.460(2)c? Who would be the sponsoring agency?

D C. 404 Permit, Corps of Engineers 33 U.S.C. 1344
For activities involving work in public waters or the discharge of dredge or fill material to public water, the Corps of Engineers has primary jurisdiction.

E D. 401 Water Quality Certification 33 U.S.C. 1341
Ecology has one year from the date of application in which to certify that a proposed 404 action, or any other action requiring a federal permit or license,complies with state water quality standards.

F E. Coastal Zone Consistency Determination 16 U.S.C. 1456 c
Ecology has 6 months in which to concur, or not concur with a certification submitted by an applicant for a federal permit or license. Ecology must decide whether the proposed action is consistent with the state's coastal zone program, which in this instance is the Shoreline Management Act.

3. Shorelands
   A. Shoreline Substantial Development Permit RCW 90.58.140
      Note that these permits are only good for two years from date of issuance.
      Klickitat/Skamania Counties; which county has shoreline jurisdiction where the river forms the boundary between the two?
   B. Exemption; under Cowiche Canyon Conservancy v. Bosley 118 Wn2d 801 (1992), Is a Shoreline Substantial Development Permit required? Is the removal of the dam "construction or alteration of a structure" as defined in the case? Do the other short-term project developments, incidental to the removal, constitute development?

4. SEPA/NEPA RCW 43.21C.031 Contact: Tom Luster
   If FERC and Pacificorp publish a supplemental EIS adopting the proposed removal plan as the preferred alternative,is any additional SEPA process required? Can SEPA ride on NEPA? But see RCW 89.08.460(1) which requires a state EIS.

5. Dam Safety RCW 90.03.350; 86.16.035. Ecology HQ
   With respect to safety only, FERC licensees are no longer required to submit plans, proposals, specs, etc. to Ecology for approval. RCW 43.21A.068 (1995).

6. Air Quality RCW 70.94 Ecology Central Regional Office
   Contact person will be: Sue Billings, CRO

7. Solid Waste Permit RCW 70.95 Ecology Central Regional Office
   Contact person will be John Storman, Melissa Gildersleeve06/17/98 5:51 PM

8. Noise Control RCW 70.107. Local government enforces regulations adopted by Ecology to prevent excessive noise. Exemption at WAC 173-60-050. Blasting.

Christine O. Gregoire
ATTORNEY GENERAL OF WASHINGTON
Ecology Division
629 Woodland Square Loop SE 4th Floor • Lacey WA 98503
Mailing Address: PO Box 40117 • Olympia WA 98504-0117

June 30, 1999

Mr. Michael P. O'Connell
Stoel Rives
One Union Square Suite 3600
600 University Street
Seattle, WA 98101-3197

RE: Ecology Permits for Condit Dam Removal

Dear Michael:

I received your letter dated June 23 asking for confirmation of my comments made in a meeting between us in June 1998. I wrote informal comments titled "Condit Dam Removal Plan: Dept. of Ecology Permits w/ Relevant Cites," which you attached to your letter. These comments were intended to facilitate our discussion last year.

In regard to WAC 173-201A-110, I have advised the Ecology Water Quality Program (Bob Barwin, CRO Yakima) to modify the regulation or adopt a new regulation to accommodate projects such as this one. The water quality standards now in effect do not account for projects the purpose of which is to restore habitat and improve long-term water quality. The federal Clean Water Act and the state's Water Pollution Control Act (RCW 90.48) authorize Ecology to give special consideration to projects with results beneficial to long-term water quality. Under this authority, Ecology may adopt a regulation designed to permit water quality impacts arguably not now permitted by the water quality standards. This rule adoption is roughly a two-year process. Water quality standards are routinely reviewed and revised by Ecology on a regular basis. Mr. Barwin and Mr. Luster are aware that the current regulations may not permit the proposed method of removal. The agency supports the concept of removing Condit Dam and hopes to work with PacifiCorp, the affected tribes, other agencies and the public to accomplish removal expeditiously.

This letter reflects the opinion of the author and is not an official expression Ecology policy. Please feel free to contact me or Bob Barwin directly (509-457-7107) if you have any additional questions.

Yours,

MARK C. JOBSON
Assistant Attorney General
(360) 459-6156

MCJ:cc
cc: Bob Barwin, Ecology CRO
Tom Luster, Ecology SEAP HQ

DOE 0915

CONFERENCE CALL

Date: January 25, 2001

Participants:

Katherine Ransel	Gail Miller
Neil Wise	Brian Barr
Tim Weaver	Michael O'Connell – PC's Attorney
Brian Faller	

Discussion:

Dept of Ecology Rule Revisions / 401 Certification

- Discuss Ecology's proposed revisions to short-term modifications, water anti-degradation rules relating to dam removal coverage
- Michael O'Connell to circulate suggested revisions for review by the Settlement Agreement (SA) attorneys this week
- Brian Faller will check on Mark Hicks and Polly Zehm's schedule to arrange a conference call between Ecology and the SA attorney re Ecology's rule revisions
- Ecology's comment period on their rule revisions ends 2/16/01

Next Conference Call

- January 31, 2001 at 10:00 am
- Gail will arrange the call

CZMA Review

- New Rules to be discussed at 1/31 teleconference

404 Permit

- Research is ongoing regarding whether a Nationwide or individual Permit is applicable

Federal Pre-emption of state and local permits

- Some discussion occurred, but held over until the next conference call when Bob Nelson, Stoel Rives, could join the call

Status of response to FERC AIR

- PacifiCorp is on track to provide response to FERC by the January 29, 2001 deadline
- Consultants hired to assist with the Cultural Resource Management Plan and spoil site issues

Implementation Team Meetings

- Begin in March and conduct quarterly

CONFERENCE CALL

Date: January 31, 2001

Participants:

Barbara Scott-Brier	Tim Weaver
Katherine Ransel	Gail Miller
Brian Faller	Michael O'Connell
Neil Wise	Bob Nelson

Discussion:

Department of Ecology rule revisions

- Discussion concerning Michael O'Connell's draft revisions to ensure the revisions cover dam removal
- Michael to re-draft document in preparation for a face-to-face meeting with Mark Hicks, Dept of Ecology
- Katherine Ransel, Michael O'Connell and Brian Faller to attend meeting with Ecology
- Katherine to let Michael know if a meeting with Ecology can occur on February 8

Pre-emption issue

- The participants discussed FPA pre-emption issues as applied to Project removal under Condit Settlement Agreement
- PacifiCorp and Stoel Rives will continue to analysis of issue
- FERC staff stated in 1996 FEIS that FPA pre-empts Washington's Hydraulic Permit Approval as applied to the new license considered in 1996 FEIS according to Neil Wise

CZMA

- Ecology's position is that CZMA review is not required for project removal under Settlement Agreement because the project is outside the coastal zone, Ecology has not geographically described areas outside coastal zone in which it seeks review of FPA licensed projects, and Ecology had actual knowledge of application for amended license and potential impacts of Project removal on coastal resources but did not request CZMA review
- Local shoreline permits might be required if a CZMA review is applicable

Condit Dam, Mr. O'Connell attempt at craft, some rule.

WAC 173-201A-070 Antidegradation. The antidegradation policy of the state of Washington, as generally guided by chapter 90.48 RCW, Water Pollution Control Act, and chapter 90.54 RCW, Water Resources Act of 1971, is stated as follows:

(1) Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed. **No provision in this chapter is to be interpreted as suspending this basic protection; however, this provision is not intended to prevent the restoration of beneficial uses that existed prior to human-caused alteration of a waterbody.**

(2) Whenever the natural conditions of said waters are of a lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria.

(3) Water quality shall be maintained and protected in waters designated as outstanding resource waters in WAC 173-201A-080.

(4) Whenever waters are of a higher quality than the criteria assigned for said waters, the existing water quality shall be protected and pollution of said waters which will reduce the existing water quality shall not be allowed, except in those instances where:

(a) It is clear, after satisfactory public participation and intergovernmental coordination, that overriding considerations of the public interest will be served;

(b) All wastes and other materials and substances discharged into said waters shall be provided with all known, available, and reasonable methods of prevention, control, and treatment by new and existing point sources before discharge. All activities which result in the pollution of waters from nonpoint sources shall be provided with all known, available, and reasonable best management practices; and

(c) When the lowering of water quality in high quality waters is authorized, the lower water quality shall still be of high enough quality to fully support all existing beneficial uses.

(5) Short-term modification of water quality may be permitted as conditioned by WAC 173-201-A-110.

[Statutory authority: Chapter 90.48 RCW 92-24-037 (Order 92-29), § 173-201A-070, filed 11/25/92, effective 12/26/92.]

WAC 173-201A-110 Short-term modifications. The criteria and special conditions established in WAC 173-201A-030 173-201A-140 may be modified for a specific waterbody on a short-term basis when necessary to accommodate essential activities, respond to emergencies, or to otherwise protect the public interest, even though such activities may result in a temporary reduction of water quality conditions below those criteria and classifications established by this regulation. Such activities must be conditioned, timed, and restricted (i.e. hours or days rather than weeks or months) in a manner that will minimize water quality degradation to existing and characteristic uses. In no case will any degradation of water quality be allowed if this degradation significantly interferes with or becomes injurious to characteristic water uses or causes long-term harm to the environment. **It is recognized, however, that when conducting watershed restoration activities or other activities which will result in restoration of waterbody structures or environmental conditions (e.g., dam removal), it may sometimes be necessary to allow disturbances that cause significant impacts to waterbody structures and environmental conditions to levels that will provide greater benefits to the health of the aquatic system in the long-term.**

(1) A short-term modification may be issued in writing by the director or his/her designee to an individual or entity proposing the aquatic application of pesticides, including but not limited to those used for control of federally or state listed noxious and invasive species, and excess populations of native aquatic plants, mosquitoes, burrowing shrimp, and fish, subject to the following terms and conditions:

(a) A short-term modification will in no way lessen or remove the project proponent's obligations and liabilities under other federal, state and local rules and regulations.

(b) A request for a short-term modification shall be made to the department on forms supplied by the department. Such request shall be made at least thirty days prior to initiation of the proposed activity, and after the project proponent has complied with the requirements of the State Environmental Policy Act (SEPA);

* 1 moved from here; text not shown

~~(d)~~**(c)** Appropriate public notice as determined and prescribed by the director or his/her designees shall be given, identifying the pesticide, applicator, location where the pesticide will be applied, proposed timing and method of application, and any water use restrictions specified in USEPA label provisions;

(e) The pesticide application shall be made at times so as to:

(i) Minimize public water use restrictions during weekends; and

(ii) Avoid public water use restrictions during the opening week of fishing season, Memorial Day weekend, Independence Day weekend, and Labor Day weekend;

(f) Any additional conditions as may be prescribed by the director or his/her designee.

(2) A short-term modification may be issued for the control or eradication of noxious weeds identified as such in accordance with the state noxious weed control

law, chapter 17.10 RCW and Control of spartina and purple loosestrife, chapter 17.26 RCW. Short-term modifications for noxious weed control shall be included in a water quality permit issued in accordance with RCW 90.48.445, and the following requirements:

(a) Water quality permits for noxious weed control may be issued to the Washington state department of agriculture (WSDA) for the purpose of coordinating and conducting noxious weed control activities consistent with their responsibilities under chapter 17.10 and 17.26 RCW. Coordination may include noxious weed control activities identified in a WSDA integrated noxious weed management plan and conducted by individual landowners or land managers.

(b) Water quality permits may also be issued to individual landowners or land managers for noxious weed control activities where such activities are not covered by a WSDA integrated noxious weed management plan.

(3) The turbidity criteria established under WAC 173-201A-030 shall be modified to allow a temporary mixing zone during and immediately after necessary in-water or shoreline construction activities that result in the disturbance of in-place sediments. A temporary turbidity mixing zone is subject to the constraints of WAC 173-201A-100(4) and (6) and is authorized only after the activity has received all other necessary local and state permits and approvals, and after the implementation of appropriate best management practices to avoid or minimize disturbance of in-place sediments and exceedances of the turbidity criteria. A temporary turbidity mixing zone shall be as follows:

(a) For waters up to 10 cfs flow at the time of construction, the point of compliance shall be one hundred feet downstream from activity causing the turbidity exceedance.

(b) For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of compliance shall be two hundred feet downstream of activity causing the turbidity exceedance.

(c) For waters above 100 cfs flow at the time of construction, the point of compliance shall be three hundred feet downstream of activity causing the turbidity exceedance.

(d) For projects working within or along lakes, ponds, wetlands, estuaries, marine waters or other nonflowing waters, the point of compliance shall be at a radius of one hundred fifty feet from activity causing the turbidity exceedance.

(e) Nothing in this chapter shall preclude the department from granting written authorizations for exceedance of turbidity criteria in accordance with this chapter.

** 1 ~~(c)~~**(4)** A short-term modification shall be valid for the duration of the activity requiring modification of the criteria and special conditions in WAC 173-201A-030 through 173-201A-140, or for one year, whichever is less. Ecology may authorize a longer duration where the activity is part of an ongoing or long-term operation and maintenance plan, integrated pest or noxious weed management plan, waterbody or watershed management plan, ~~or restoration plan~~ **restoration plan or other activity which results in restoration of waterbody structures or environmental conditions**

which existed prior to human-caused alteration of a waterbody. Such a plan must be developed through a public involvement process consistent with the Administrative Procedure Act (chapter 34.05 RCW) and be in compliance with SEPA, chapter 43.21C RCW, in which case the standards may be modified for the duration of the plan~~, or for five years, whichever is less;~~.

[Statutory Authority: Chapter 90.48 RCW and 40 CFR 131, 97-23-064 (Order 94-19), § 173-201A-110, filed 11/18/97, effective 12/19/97. Statutory Authority: Chapter 90.48 RCW 92-24-037 (Order 92-29), § 173-201A-110, filed 11/25/92, effect 12/26/92.]

---------- COMPARISON OF FOOTERS ----------

-FOOTER 1-
Seattle-3090399.2 0058815-00059

-FOOTER 2-
Seattle-3090399.2 0058815-00059 ——

DRAFT
Department of Ecology

Condit Dam Decommissioning

Project Assumptions
And
Project Management Structure

6/25/ 2001

Project Objective:

By March 1, 2002, issue a 401 Water Quality Certification or other permitting document to allow major watershed restoration within the lower White Salomon River (e.g., removal of Condit Dam) to meet the legal obligation (MOA) of 1998 with PacifiCorp.

Project Issues:

- Timing of certification or other permitting document is short, less than a year away (March 1, 2002).
- Current WQ Regulations and Rules have legal and regulatory problems that increase liability.
- Final schedule of the new WQ Standards Rule is taking longer than what the Condit Dam Decommissioning project schedule allows.
- FERC's development of environmental review documents (draft EIS, etc.) will finalize *after* Ecology reaches a decision. SEPA will be required for this project.
- Local county governments are opposed to removal of Northwestern Lake and the beneficial uses that are derived from it.
- Significant acute degradation of water quality over 3 ~~year~~ plus years.
- Long-term mitigation commitments needed.
- Uncertainty in the US western power market and the possibility due to project constraints or missed deadline(s) PacifiCorp takes its option to cancel agreement.

FOSTER PEPPER & SHEFELMAN PLLC
ATTORNEYS AT LAW

1111 *THIRD AVENUE, SUITE* 3400
SEATTLE, WA 98101
FAX: (206) 447-9700
PHONE: (206) 447-4400

FACSIMILE TRANSMITTAL SHEET

March 10, 2003

TO:	FAX NUMBER:	VOICE CONTACT:	VOICE CONFIRM:
Susan Braley	(360) 407-6426	(360) 407-6414	☐ Yes ☐ No

From: Katherine Piper
Direct Dial: (206) 447-4679
Direct Return Fax: (206) 749-1935

Attachments: None

Number of Pages (Including this cover page): 1

User & Client/Matter Number: 5960 51156-41

Return to/Location:

Message: Re: Comments filed by Klickitat and Skamania Counties: March 7, 2003 Fax Cover Page.

Our March 7, 2003 fax transmission listed Patrick J. Schneider, another attorney in our office, as the sender in error.

Thank you,

Katherine Piper, Legal Secretary to Joseph Brogan and Patrick Schneider

IF YOU HAVE QUESTIONS REGARDING THE TRANSMISSION OF THIS FAX, PLEASE CONTACT THE FAX DEPARTMENT AT (206) 447-2903

THE INFORMATION CONTAINED IN THIS FACSIMILE COMMUNICATION IS PRIVILEGED AND/OR CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF EACH INDIVIDUAL OR ENTITY NAMED ABOVE. IF THE READER OF THIS COVER PAGE IS NOT AN INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION OR THE INFORMATION CONTAINED IN THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE AND RETURN THIS FACSIMILE TO US AT THE ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU.

DON THEILER
[redacted]

King County

Wastewater Treatment Division
Department of Natural Resources and Parks
King Street Center
201 South Jackson Street
Seattle, WA 98104-3855

Department of Ecology
Water Quality Program
MAR 07 2003

March 7, 2003

Susan Braley
Surface Water Quality Standards
Washington State Dept. of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Comments on Proposed Water Quality Standards Changes

Dear Ms. Braley:

Thank you for the opportunity to comment on the changes to the State Water Quality Standards proposed in December 2002. King County has been a participant in several work groups formed to advise Ecology on the standards, and we wish to commend Ecology for making stakeholders part of the process. We also compliment Ecology on the improved readability and ease of navigation through the proposed changes. It is evident that a great amount of attention was paid to making the proposals clear and the changes easy to identify.

Please find our comments below:

- Page 26 – Proposed Chapter WAC 173-201A-210(1)g-(2) – Ecology is proposing to change the bacteria indicator for water contact uses from fecal coliform to enterococci for marine waters. However, the proposed standards also contain provisions that specify "fecal coliform levels for shellfish growing areas will be viewed by Ecology as also being fully protective of primary and secondary water contract uses." While this provision may be proposed to simplify or clarify the standards, it accomplishes the opposite, by making it more confusing. As a wastewater treatment plant permittee, King County has been expecting to report compliance with future permits using enterococci as an indicator if these proposed changes are enacted. However, it is not clear to us which indicator we will be asked to monitor, enterococci or fecal coliform, or both. We are also aware that EPA is expecting that we will be reporting enterococci results. The enterococci analysis requires more expensive test procedures and the need for highly trained analysts. Thus the substitution of enterococci or its addition to fecal coliform analysis will have significant cost implications. In the comment below we will explain concerns with the change of indicator itself. However, we first wanted to emphasize that the standards, as now proposed, cause confusion for wastewater treatment permittees discharging into marine waters, and could result in even higher cost impacts if we were expected to monitor for two parameters rather than one.

- Page 26 – Proposed Chapter WAC 173-201A-210(2)a – The proposed change from fecal coliform to enterococci as the bacterial indicator for human water contact uses is of concern to the King County Wastewater Treatment Division. Fecal coliform limits are part of all sewage treatment plant NPDES permits. To date the bacteria limits in our permits have been directly based on nationally recognized technology-based bacterial standards. For compliance reporting we measure bacteria in effluent as it leaves the facility. This technology-based bacteria standard, along with the mixing zones in these permits, represent an appropriate and complete protection of public health. We are confident that the discharges from our treatment plants, conforming to these bacterial permit limits, protect public health and the environment.

  In conjunction with imposing a new water quality-based bacteria standard for enterococci standard in marine waters, Ecology has not, however, and to our knowledge is not proposing to identify and designate a new technology-based standard for enterococci to guide permit limits imposed in NPDES permits. If no such technology-based standard analogous to the current fecal coliform technology-based standard is developed, the basis for new bacteria permit limits will be shifted from a nationally utilized technology-based standard to the new water quality-based enterococci standard alone. This could potentially cause a very significant change to permit limits for treatment plants. It could also, depending on where location of the new standard is monitored, impose increased use of disinfectants during treatment. We have performed a study on how such a change would have affected the bacterial compliance monitoring if these new water quality-based standards were applied to our permits. The report from this study and the data collected are attached for your review. How any new enterococci standard is applied to a wastewater facility--to the effluent leaving the plant or to new ambient measurements at the end of the mixing zone--is of great concern. If such a water quality-based standard was implemented inappropriately it could escalate the cost of treatment and increase risks to aquatic life from additional disinfection by-products, without achieving any additional protection of human health. If this bacteria standard change is to go forward, there must be a period of time where Ecology will phase in an appropriate enterococci technology-based standard for compliance. During that time fecal coliform should continue to be used for compliance reporting.

- Page 39 - Proposed Chapter WAC 173-201A-320 (2)c – Ecology is proposing a new standard for "measurable change" in bacteria that would trigger an antidegradation review. This concept is unworkable. The proposed standard of 2 cfu/100 ml would be operationally challenging at best and at its worst not reasonable. This proposed threshold must be revised upward or deleted from this section. There are several method options for performing heterotrophic plate counts or fecal coliform counts. None of these methods would be capable of providing the accuracy necessary to enable samples of any body of water to meet this standard consistently. It would be challenging simply to obtain duplicate samples on the same day at the same site that could be assured to not exceed a difference of 2 cfu or more.

Another challenge to this proposed standard of measurability is the recognition that storms will raise the baseline bacterial count by orders of magnitude, and routinely raise it by 2 to 3 orders of magnitude easily in urban areas. Baseline counts for fecal coliforms in a typical urban stream might be on the order of 20-100 cfu/100ml. The same sampling site could easily jump to 600-6000 as a result of a storm event, with no direct influence of fecal pollution point source. The variation in heterotrophic plate counts would be even greater. Samples collected on inclement days would be inconsistent with data collected under dry baseline conditions. We would like to see Ecology either create a narrative "measurable change" standard or propose a revised quantitative standard that reflects more accurately a statistically relevant level for "measurable change". Such a level should reflect the normal range of bacterial counts in waterbodies and take into account seasonality as well as changing meteorological conditions.

- Page 48, WAC 173-201-410(2) – Ecology is proposing to change the short term modification provisions of mixing zone section of the water quality standards which may create the possibility for authorizing such modifications for many years by one action. This section indicates that such a modification could be allowed for 5 years, with unlimited renewals. We suggest that a limit on renewals should be added to the standards.

If you have any questions regarding these comments or the study report we have provided please contact Betsy Cooper, NPDES Administrator, at 206-263-3728

Sincerely,

Don Theiler
Manager

Attachment

Cc: Betsy Cooper
Greg Ma
Dick Finger
Eugene Sugita
Mike Fischer
Luanne Coachman

Treatment Plant Effluent Study of Bacterial Indicators, Fecal Coliform and Enterococcus, 2001 - 2002

The Washington State Department of Ecology (DOE) has proposed changes to the state's water quality standards that could impact the NPDES permit requirements pertaining to the release of effluent into receiving marine receiving waters. One of the changes DOE is proposing is the replacement of the current fecal coliform standard, a fecal contaminant indicator, with enterococci, an organism associated with the presence of pathogens and other bacteria of public health concern. This revision is in response to the Environmental Protection Agency's (EPA) recommendation that enterococcus are the preferred indicator in recreational waters.

A second change to the water quality standards is reflected in the allowable density of indicator bacteria recovered from the affected waterways. The current DOE standard for Class AA marine receiving waters of treatment plant effluent is 14 fecal coliform colony forming units (cfu) per 100 milliliters (ml) of water. A common NPDES permit level applied to the treatment plant effluent prior to release into non-contact marine water bodies is 200 fecal coliform cfu per 100 ml of effluent.

The proposed water quality criteria for the density of enterococci in marine waters takes into account the useage of the water body. If the public has access to a water body for recreational use, the enterococci standard is <35 cfu per 100 ml of water. If it is not likely that the public will come into contact with the water body, the enterococci standard is higher, at <70 cfu per 100 ml of water. (WADOE, FOCUS paper, publication #00-10-068). It is unknown what the NPDES permitting process would deem acceptable levels of enterococci in treatment plant effluent prior to release into marine receiving waters.

This study was designed to (i) determine if the treated effluent released from two major treatment plants would meet the proposed DOE enterococci standards for marine surface waters at the point of discharge (no mixing considered) ; (ii) compare the number of exceedences of the current or proposed standards by enterococci and fecal coliform at the point of discharge (no mixing considered); and (iii) establish any correlation between the number of enterococci and the number of fecal coliform recovered from the two treatment plant's effluents.

MATERIALS AND METHODS

Samples:

Effluent samples were collected twice weekly from April 2001 through May 2002 from West Point Treatment Plant (Seattle, Wa.) (WPTP) and South Treatment Plant (Renton, Wa.) (STP). They were collected by treatment plant staff in sterile polypropylene bottles and aliquots delivered to the King County Environmental Laboratory. The samples were processed for the recovery of enterococci at the Environmental Laboratory and for fecal coliform at the WPTP and STP laboratories.

Methods:

Effluent samples were processed by membrane filtration according to Standard Methods For The Examination Of Water And Wastewater 19th ed., Section 9230C, for the detection of enterococci.

Results:

Membrane filtration is a quantitative method with a detection limit dependent on the dilution series employed by the laboratory. Only complete data sets, comprised of fecal coliform and enterococci values, were used in the analysis of the data. Effluent samples from each of the treatment plants were not received on every collection date resulting in a difference of total samples processed for the duration of the study. Ninety-nine samples were received from WPTP and one hundred and eleven samples were received from STP.

Table 1 summarizes the number of times effluent samples met the proposed enterococci standards.

Table 1

Number (and percent) of effluent samples meeting the proposed enterococci standard and non-contact guideline and current fc permit limit (no mixing applied)

Location	Total # samples	# samples <35cfu ent(%)	# samples <70cfu ent(%)	# samples <200cfu fc(%)	# samples <14cfu fc(%)
WPTP	99	58 (59)	66 (66)	91 (92)	28(28)
STP	111	72 (65)	79 (71)	102 (92)	17(15)

Of the ninety-nine samples processed for enterococci from WPTP, 66% met the non-contact criteria for surface waters and 59% met the criteria for recreational surface waters.
Of the one hundred and eleven samples processed for enterococci from STP, 71% met the non-contact criteria for surface waters and 65% met the criteria for recreational surface waters.

Table 2 summarizes the number of times effluent samples exceeded the proposed enterococci standard, non-contact guideline and the current fc permit limit (no mixing applied).

Table 2

Number (and percent) of effluent samples exceeding the proposed enterococci standards or current fecal coliform standard

Location	Total # samples	# samples >35cfu ent(%)	# samples >70cfu ent(%)	# samples >200cfu FC(%)	#samples >14 cfu FC (%)
WPTP	99	41 (41)	33 (33)	8 (8)	71(72)
STP	111	39 (35)	32 (29)	9 (8)	94(85)

Of the ninety-nine samples processed for enterococci from WPTP, 33% exceeded the non-contact criterion for surface waters and 41% exceeded the criterion for recreational surface waters. /Eightpercent of the samples exceeded the fecal coliform standard of 200 cfu per 100 ml of effluent, whereas, 72% exceeded fecal coliform standard of 14 cfu per 100 ml of receiving water (without dilution).

Of the one hundred and eleven samples processed for enterococci from STP, 33% exceeded the non-contact criterion for surface waters and 35% exceeded the criterion for recreational surface waters. Again, only 8% of the samples exceeded the fecal coliform standard of 200 cfu per 100 ml of effluent, whereas, 85% exceeded fecal coliform standard of 200 cfu per 100 ml of receiving water (without dilution).

Values ranging from 0 cfu/100 ml of bacteria through 8900 cfu/100 ml of bacteria were obtained in this study. Due to the wide range of counts found in the fecal coliform data as well as the enterococci data, the data values were converted to their natural log and plotted on a scattergram (Figures 1&2). The scattergram is a useful tool in illustrating a relationship between two variables, or in this case, two indicator organisms. In paired data with a high degree of correlation we would expect the paired data to cluster together. Any variation would be the result of laboratory methodology or due to treatment plant processes. The variation seen in Figures 1 & 2 compares correlation between the number of fecal coliform and the number of enterococci recovered from any given effluent sample.

Figure 1

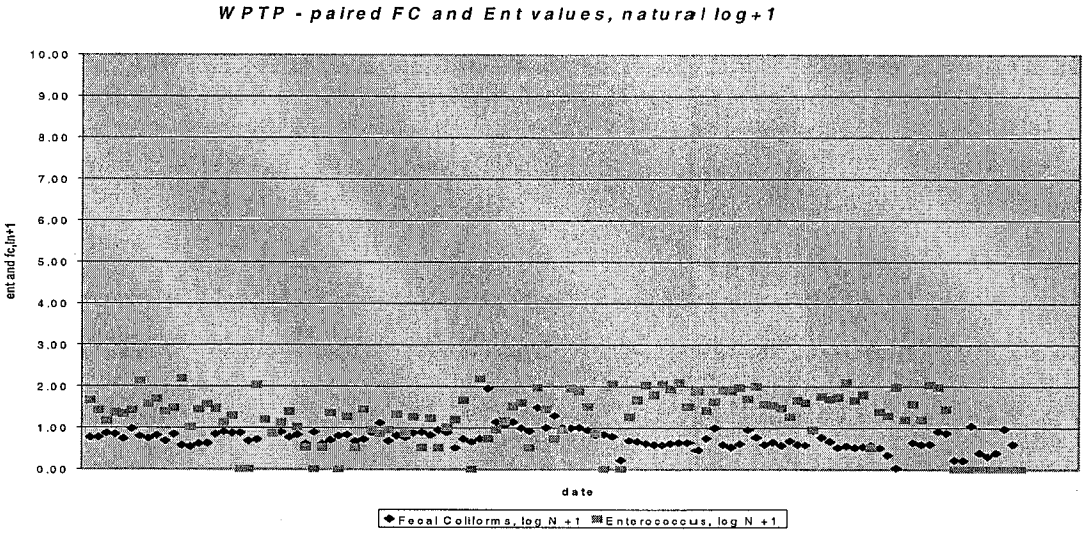
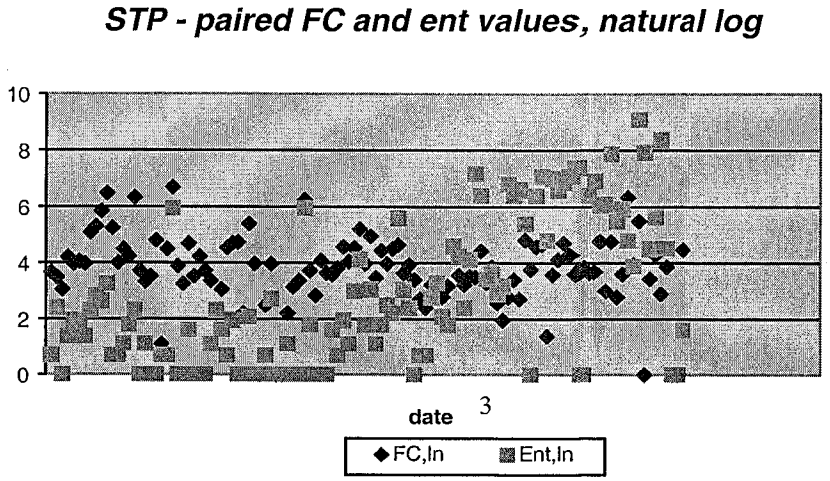


Figure 2



Discussion:

Historically, most federal and state guidelines have stated water quality criteria in terms of fecal coliform densities. Based on these standards and without taking credit for further dilution from mixing, the NPDES permits for the WPTP and STP effluents limits have been met over 90% of the testing times, as indicated by our sampling data. EPA has recommended a change in the required bacterial indicator from fecal coliform to enterococci for water quality monitoring programs. The WADOE has agreed to propose this change in indicators to enterococci, at a reduced allowable density for surface waters. NPDES permit writers have suggested they also would set the bacterial indicator enterococci limits in agreement with the DOE water quality standards. At a permit limit of 70 enterococci per 100 ml, the treated effluent produced by either WPTP or STP, without dilution, would be in compliance only 72% of the testing time. That is significantly less than >90% compliance to the current fecal coliform permit limit. When compared to the fecal coliform water quality standard without further dilution, the plants would be in compliance 28% (WPTP) and 15% (STP).

The fecal coliform and enterococci bacterial groups are both used to indicate the presence of fecal contamination. It is assumed that if there is fecal pollution present in water bodies, it is likely there are microorganisms present that would be of human health significance. If the two indicator groups, fecal coliform and enterococci have a similar association with the presence of fecal pollution, it is likely that the number of recoverable fecal coliform and enterococci from a single sample would show some degree of correlation. If the level of fecal coliform was elevated, we would expect to see an elevated enterococci count and other indications of the presence of fecal contamination. This is not what we observed with this study. Figures 1 & 2 show the fecal coliform counts were fairly consistent over the course of the testing year, with counts generally about 0 to 40 cfu/100 ml from WPTP effluent, and 20 to 50 cfu/100 ml from STP effluent. This was not true with the enterococci counts, which had counts ranging from 0 to 8900 cfu/100 ml effluent. This raises the question of why there is not a demonstrable relationship between the two indicator groups. It is not within the scope of this study to answer that question.

It is our conclusion that a treatment plant with a NPDES permit without dilution requiring <35 enterococci per 100 ml effluent would be out of compliance approximately 40% of the time, and out of compliance for <70 enterococci per 100 ml effluent approximately 30% of the time. This compares to the current rate of noncompliance approximately 8% of the time for the requirement of 200 fecal coliform per 100 ml effluent and approximately 82% of the time for the requirement of 14 fecal coliform per 100 ml effluent.

Attachment 1 & 2 – data sheets

South Plant Disinfection Study 2001-2002

sp-date	chlor	flow	fc	ent
7/16/01	0.83	71.00	800.00	380
6/4/01	0.28	14	650	25
6/21/01	0.70	45	560	9
6/3/02	0.32	51.4	560	120
10/11/01	0.41	46.4	510	380
5/31/01	0.35	48	344	13
6/10/02	0.02	18.8	240	8900
9/6/01	0.49	35.60	220.00	7
5/28/01	0.48	38	200	16
6/7/01	0.64	76	188	1
11/19/01	0.59	107	180	61
5/24/01	0.47	44	160	9
11/29/01	1.18	113	140	20
7/5/01	1.42	24	120	0
5/16/02	0.2	47.6	116	430
5/23/02	0.18	52.3	114	2600
8/27/01	1.53	13.69	112.00	0
8/23/01	0.84	34.42	110.00	6
4/22/02	0.13	42.1	109	940
7/26/01	1.35	58.00	107.00	4
4/8/02	0.54	83.7	104	1200
12/17/01	1.17	158	102	270
2/7/02	0.45	65.6	100	99
11/5/01	0.74	43.9	96	6
4/4/02	0.24	53.6	96	600
8/20/01	0.96	41.86	92.00	1
11/15/01	1.01	103.8	92	19
6/14/01	1.10	41	88	2
7/12/01	1.14	43	88	1
12/27/201	1.01	59.4	86	4
12/6/01	1.27	93.2	83	5
2/28/02	0.29	74.5	82	600
6/20/02	1.17	67.4	72	280
6/18/01	1.11	38	68	5
8/2/01	1.30	44.43	68.00	0
5/10/01	0.79	42	66	3
4/18/02	0.24	64.7	60	730
10/22/01	0.68	17.7	58	0
11/8/01	0.68	38.3	56	2
5/17/01	1.21	45	56	5
6/11/01	1.26	35	54	1
9/10/01	0.70	22.30	52.00	0
11/26/01	0.95	31.5	52	5
12/10/01	0.87	38	52	11
5/14/01	0.77	42	52	6
9/20/01	0.84	45.60	52.00	14
5/21/01	0.71	57	52	3
6/6/02	0.05	48.2	50	48
1/7/02	0.99	109.7	50	10

7/19/01	1.11	47.00	48.00	0
3/7/02	0.15	43	46	39
6/27/02	0.79	53.1	46	91
5/2/02	0.18	62.6	45	
11/1/01	0.88	40.2	44	1
4/1/02	0.23	23.9	42	No data
10/15/01	0.63	21.3	40	5
6/25/01	1.80	23	40	0
8/6/01	1.24	53.40	40.00	0
5/13/02	0.1	15.5	39	1000
4/30/01	0.97	45	38	1
10/25/01	0.69	44.1	37	0
5/6/02	0.22	49.3	37	600
1/3/02	0.76	60.4	37	20
4/29/02	0.17	48.9	36	1600
5/30/02	0.06	50.5	36	370
10/29/01	0.39	40	35	4
4/15/02	0.42	66.1	35	1100
2/11/02	0.36	75.9	34	69
7/2/01	1.61	40	33	0
7/30/01	1.41	56.00	33.00	0
2/21/02	0.46	114	33	60
2/25/02	0.46	67.9	32	1300
12/3/01	1.2	70.2	31	2
6/17/02	0.95	63.3	30	90
1/10/02	0.8	80.2	29	0
3/21/02	0.49	80.7	29	600
8/9/01	0.87	33.63	28.00	2
10/8/01	1.88	45	28	0
6/28/01	1.09	44	27	2
3/4/02	0.44	64.3	26	30
7/23/01	1.15	46.00	25.00	0
2/14/02	0.21	26.2	24	10
1/24/02	0.44	49.1	24	15
2/4/02	0.52	50.3	23	5
10/4/01	0.99	35.7	22	0
5/7/01	0.54	33	20	0
8/16/01	1.27	37.69	20.00	4
5/20/02	0.62	52.6	19	440
1/28/02	0.7	79.4	18	26
6/24/02	0.15	66.7	17	4300
10/18/01	0.86	19.5	16	0
5/28/02	0.33	44.4	15	240
1/31/02	0.52	66.5	15	7
3/18/02	0.49	126.88	15	900
1/14/02	0.66	52.7	14	1
3/25/02	0.26	54	14	730
3/11/02	0.7	47.2	12	17
9/17/01	0.98	22.60	11.00	1
1/17/02	0.59	52.9	10	1
10/1/01	0.94	27.30	8.00	2
8/13/01	1.28	34.00	8.00	9

8/30/01	0.93	51.60	8.00	0
3/14/02	0.69	48.1	6	23
4/11/02	0.63	25.7	3	120
7/9/01	1.65	39	2	1
9/24/01	1.13	16.10	0.00	0, high CL2
7/8/02	0.71	42.46	0	
3/28/02	0.21		122	220
5/3/01	0.33		32	10
7/1/02	0.76		0	
12/13/01	1.15		89	8
9/13/01				no sample
9/27/01				do not sample
4/25/02			72	1200
6/13/02				2800

West Point Disinfection Study 2001-2002

wp-date	prechlor	reschlor	flow	fc	ent
5/13/02	0.039	0.073	40	1300	550
11/1/01	0.74	0.10	81	1300	2500
6/11/01	0.58	0.09	405	800	2800
8/13/01	0.62	0.04	76	300	2
7/1/02	0.4	0.07	85	300	
11/19/01	1	0.062	274	300	55
3/11/02	0.78	0.051	385	300	600
8/23/01	0.84	0.18	140	230	13
1/7/02	0.8	0.102	404	230	990
8/6/01	0.62	0.23	12	130	2
8/16/01	0.71	0.04	69	130	18
5/3/01	0.78	0.10	81	130	23
7/8/02	0.98	0.065	118	130	
7/16/01	0.72	0.10	245	130	800
7/26/01	0.90	0.04	60	110	8
7/9/01	0.88	0.19	66	110	1
5/10/01	0.85	0.11	76	110	19
7/30/01	0.78	0.05	61	80	21
8/9/01	0.90	0.18	68	80	0
5/31/01	0.82	0.11	80	80	88
10/29/01	0.67	0.05	81	80	1
5/24/01	0.80	0.08	85	80	1700
5/17/01	0.74	0.12	88	80	17
5/7/01	0.87	0.23	88	80	9
4/30/01	0.77	0.18	160	80	73
9/10/01	0.69	0.21	71	70	5
6/7/01	0.85	0.20	74	70	30
2/19/02	0.75	0.041	143	70	23
10/8/01	0.83	0.12	109	60	11
5/28/02	0.61	0.046	63	40	850
8/27/01	0.68	0.09	66	40	2
8/2/01	0.84	0.19	66	40	6
8/20/01	0.81	0.08	71	40	1
9/4/01	0.89	0.16	71	40	5
4/11/02	0.78	0.069	71	40	130
8/30/01	0.73	0.05	74	40	26
7/5/01	0.88	0.10	75	40	14
9/17/01	0.77	0.19	75	40	4
5/21/01	0.98	0.02	85	40	24
5/30/02	0.92	0.094	96	40	520
2/14/02	0.47	0.061	106	40	270
1/24/02	0.63	0.098	150	40	810
2/21/02	1	0.061	322	40	60
6/20/02	1.05	0.054	50	20	
6/13/02	0.23	0.066	59	20	
7/12/01	0.69	0.18	59	20	1
7/23/01	0.88	0.13	62	20	4
9/24/01	0.90	0.10	65	20	2
11/8/01	1.15	0.05	67	20	5

9/13/01	0.82	0.14	67	20	16
7/11/02	0.61	0.062	73	20	
10/15/01	0.95	0.17	73	20	2
6/18/01	0.62	0.11	76	20	25
6/25/01	0.85	0.15	76	20	28
9/20/01	0.88	0.18	76	20	13
6/21/01	0.63	0.16	78	20	44
11/13/01	1.07	0.05	79	20	9
2/4/02	0.63	0.035	80	20	370
1/22/02	0.68	0.089	81	20	79
3/4/02	0.62	0.1	81	20	460
5/29/01	0.75	0.21	81	20	47
11/26/01	0.93	0.06	85	20	2
6/4/01	0.69	0.23	88	20	21
6/14/01	0.55	0.08	88	20	6
2/11/02	0.65	0.094	97	20	35
2/7/02	0.65	0.08	118	20	1300
1/31/02	0.59	0.074	123	20	910
10/25/01	0.74	0.07	194	20	75
11/29/01	1.5	0.056	238	20	450
12/17/01	1.01	0.09	251	20	260
10/18/01	0.89	0.27	ns	20	6
6/17/02	0.22	0.069	44	0	
6/3/02	0.88	0.056	45	0	25
5/16/02	1.2	0.2	48	0	10
4/8/02	0.95	0.08	53	0	5
6/24/02	0.4	0.051	60	0	
5/6/02	0.52	0.073	61	0	20
5/9/02	0.35	0.069	63	0	14
5/23/02	0.6	0.049	64	0	10
3/21/02	0.58	0.036	65	0	30
4/22/02	0.57	0.068	68	0	1300
10/22/01	0.52	0.10	70	0	10
4/29/02	0.55	0.045	70	0	160
5/2/02	0.58	0.11	71	0	2
9/6/01	1.12	0.11	73	0	4
4/18/02	0.53	0.06	75	0	110
3/7/02	0.96	0.071	75	0	85
6/27/02	0.32	0.079	75	0	
12/27/01	0.84	0.115	76	0	4
3/18/02	0.66	0.062	78	0	40
7/2/01	0.91	0.07	79	0	8
3/28/02	0.6	0.044	79	0	69
4/4/02	0.59	0.063	83	0	55
11/5/01	1.95	0.14	85	0	3
3/25/02	0.69	0.062	85	0	13
4/15/02	0.68	0.06	85	0	83
3/14/02	0.6	0.055	87	0	46
1/14/02	0.7	0.078	87	0	13
1/3/02	0.85	0.095	90	0	0
7/19/01	1.20	0.10	92	0	10
2/28/02	0.54	0.046	100	0	280

2/25/02	0.6	0.095	106	0	310
1/28/02	0.6	0.072	114	0	160
5/20/02	0.65	0.07	117	0	45
12/10/01	1	0.078	118	0	5
1/10/02	0.23	0.064	122	0	0
12/20/01	0.95	0.102	143	0	35
12/6/01	1.3	0.188	148	0	3
12/3/01	1.01	0.078	181	0	27
11/15/01	1.15	0.05	206	0	37
4/25/02	0.53	0.056	nm	0	70
12/13/01	1	0.079	nm	0	440

date				fc	ent

Done on 4/3/03

MAXINE KEESLING [redacted]

Maxine Keesling
15241 N.E. 153rd
Woodinville, WA 98072
(425) 483-8523

Clean copy of this for attached

March 6, 2003

TO: Susan Braley, DOE
FAX: 360-407-6426

RE. DOE WATER QUALITY RULES (303(d) listings)

Since, on June 19, 2002, I attended Ecology's meeting on the above in Bellevue, and since at that time Dave Garland, Ralph Svrjcek and Matthew Green were so sincere and convincing when they said there would be a new/enforceable/turnover for 303(d) listing standards and that they fully understood shortcomings in the previous listings, I turned my attention elsewhere and dismissed said listings from my mind.

Until I recently received the February 28th Legisletter from the Washington Farm Bureau. When they strongly state that the new rules [redacted]

to all, including both farmers and non-farming landowners.

(I am including copies of what I turned into the Ecology folks at the June 19th '02 Bellevue meeting, except for the grass pastures, which is too dark to copy well.)

Sincerely,
Maxine Keesling

cc: 6-7-02 letter to DOE
10-19-97 letter to DOE's Steve Butkus
[redacted] 10-19-97 [redacted]
the failings in the then-current listings.)

(I would like this letter and the ecy all included as of record testimony for this current go-round. I would also like it noted that when, at the 6.19.02 meeting I read a statement by Kathy Fletcher, Executive Director of People for Puget Sound, that "Puget Sound, including the rivers and streams that feed it, is still dangerously polluted.", one of the DOE-ers said that state- [redacted] was NOT dangerous.)

Scan as-is

[redacted]

Maxine Keesling
15241 NE 153rd Street
Woodinville, WA 98072
(425) 483-8523

June 7, 2002

TO: Department of Ecology Water Quality Program
PO Box 47600
Olympia WA 98504-7600

RE: 303(d) Listing Policy

Previous 303(d) listings, at least as regards to the Sammamish River and Bear-Evans Creeks in my vicinity, included seat-of-the-pants conclusions apparently subject to spur-of-the-moment changes. (See enclosed copies of my 10-19-97 letter to Steve Butkus of DOE, and my 11-29-97 letter to the editor of the Capital Press newspaper, which was printed in the 12-12-97 issue of that paper. I would like those letters to be entered into the public record of current listing policy changes.) Certainly, those listings were not based on Best Available Science or even any science at all in some instances.

Previous listings for the above streams were based on temperature, dissolved oxygen and fecal coliform, which the enclosures discuss in depth.

As to fecal coliform sources for the Sammamish River, since the land along the river is sewered and the dairy herds are long gone, it's apparent that the source of fecal coliform is a natural source: geese and ducks. Copied on the back of this letter is a photo of one pair of Canadian geese with their seven goslings on the Sammamish Slough (River). That's one pair out of uncounted pairs. Any listing of fecal coliform as a Sammamish River pollutant should analyze the source: natural, or human, with data to back up the answer.

Regarding water temperature in the Sammamish River, following is a quote from the Sammamish River Temperature Model Results Executive Summary:

"KEY FINDINGS. Analysis of the different management results in a few key findings:

Hypolimnetic withdrawal is the only strategy reviewed that can make large reductions in thermal stress on salmon where it is greatest - at the outlet of Lake Sammamish, where the river is currently fed by the warm upper layer (epilimnion) of the lake. . . ."

That bears out what I have testified to for years, both to local watershed forums and to the DOE. See enclosed copy of November 14, 2001, COMMENTS ON SAMMAMISH RIVER RESTORATION, given at a King County meeting in Woodinville on Sammamish River restoration, which I wish also to be entered into the current public record for 303(d) listings.

If the Sammamish River and Bear-Evans Creeks are again included in 303(d) listings, I'm looking forward to seeing the science-based justifications therefor.

Maxine Keesling

cc: EPA Region 10 (FAX: 206-553-0165
Speaker of the House Clyde Ballard
Washington State Grange
Washington State Farm Bureau

Maxine Keesling
15241 NE 153rd Street
Woodinville, WA 98072
(425) 483-8523

October 19, 1997

TO: Steve Butkus, Washington DOE
FAX: 360-407-6426

RE: Comments on Proposed 1998 Section 303(d) List (Impaired/Threatened Surface Waters Requiring Additional Pollution Controls)

I checked only three of the water bodies, but if they were indicators, then a rewrite is needed. Data does not jibe with the 1996 List; data is listed under the wrong stream; and there are numerous errors, omissions and inconsistencies. Following is what I found on the three studied:

SAMMAMISH RIVER (found on List pages 82-89)

DISSOLVED OXYGEN.

WA-08-1070 (List p. 85) The 1998 Rationale comes up with YES, to list, based on Brad Hopkins (DOE) 1996 listing Rationale indicating that dredging and channelization "are likely having an influence . . .", despite the 1996 Rationale's citing DOE's John Glynn and Seattle-Metro's Robert Brenner statements to the contrary. (Note the 1996 statements are under 08-1080, not 08-1070 as in 1998.) Also/TEMPERATURE remarks below under WA-08-1050.

This is remarkably inconsistent with the 1998 Rationale for DISSOLVED OXYGEN under WA-08-1050 (List p. 82) wherein similar Brenner/Glynn conclusions form the Rationale for an EXCLUDE, no-list determination: "These excursions are a natural condition with no direct human cause and should not form a basis for listing."

WA-08-1090 (p. 89) This is an egregious error. The YES, to list, is based on entries/testing for BEAR-EVANS CREEKS, as shown on page 39 of the previous 1996 List. The testing-station readings that resulted in a YES for a 1998 listing of the Sammamish River, resulted in a NO, don't-list for the 1996 BEAR-EVANS CREEKS entry. (Odd??)

WA-08-1100 (p. 89) No Rationale was given for the YES, list, whereas the 1996 Rationale, based on even more excursions, led to a NO, don't list. (The '96 Rationale cited John Glynn's natural-condition-due-to-stratified-Lake-Sammamish-surface-waters-flowing-into-the-river. What changed in the past two years to lead to a contrary conclusion between 1996 and 1998?

TEMPERATURE.

WA-08-1050 (p. 82) and WA-08-1070 (p. 86) Ten excursions under -1050 result in EXCLUDE because of NO DIRECT HUMAN CAUSE, while five excursions under -1070 result in a YES, list, because DOE's Brad Hopkins changed his mind after reading a Muckleshoot Tribe report blaming channelization and lack of shading for temperature problems. That's junk science, coming from a tribe noted for its desire to see every trickle in King County pre-Europeanized with native brush. Actually, the deepened, swifter-flowing Sammamish is COOLER now than with its former wide, shallow meanders.

WA-08-1090 (p. 88) Another mistake. These readings and Rationale belong under BEAR-EVANS CREEKS, not Sammamish River.

WA-08-1100 (p. 89) Yet another mistake? The Sammamish River has no "inflow to the Issaquah Hatchery."

OVER

SAMMAMISH RIVER (cont'd)

MERCURY.

WA-08-1090. Mistake. Those mercury readings were listed in the 1996 List under BEAR-EVANS CREEKS. There are no mercury readings for the Sammamish River on either the 1996 or 1998 list.

FECAL COLIFORM. (various segments)

There is no Rationale given for YES, to list. Since the river's urban areas are sewered, and the FEW homes in the rural area have no septic system problems; and since the dairy cows are long gone, with pastures going to brush, what's left is an overabundance of waterfowl, noted for excretions causing fecal coliform. This is a NATURAL CONDITION which should NOT lead to a YES listing.

BEAR-EVANS CREEKS (List page 88)

WA-08-1095. FECAL COLIFORM: With the last testing being 1991, and with the subsequent massive GMA downzonings to minimum 5-acre rural lot sizes; and with the Bear Creek Basin Plan's mandated 65% vegetation retention policies; and with the vanishing of the last dairy herd - LEAVING ONLY THE NUMEROUS WATERFOWL with their fecal coliform problems - wouldn't it be correct to say the waterfowl are a NATURAL CONDITION and EXCLUDE Bear-Evans from listing?

DRAYTON HARBOR (List page 10)

WA-01-0020. FECAL COLIFORM: The two cited excursions for 11-6-85 and 5/4/87 have passed the 10-year point and are no longer valid for listing. As to the commercial shellfish area, the only commercial beds, owned by a state employee, ceased operations even though septic system problems have been cured by sewer installations. If there is a problem even without the septic systems and the commercial shellfish beds, would waterfowl and seals/sea lions be the natural cause?

Under the circumstances, all of the above deserve non-listing - or else a valid explanation of why not.

Sincerely,

Maxine Keesling

FAX: 553-0165

cc: TO EPA REGION 10 (whoever handles 1998 Section 303(d) listings)

Since I had the feeling last time that the EPA merely rubber-stamped what was sent Region 10 by the State Department of Ecology, I'm copying these comments to you so you'll have ample time to consider the contents. Listings established on the basis of the foregoing are not valid and should not be endorsed by the EPA.

M.K.

c: Department of Ecology
EPA Region 10
House Speaker Clyde Ballard
Washington State Grange
Washington State Farm Bureau

Maxine Keesling
15241 NE 153rd Street
Woodinville, WA 98072
~~(206)~~ 425 483-8523

November 29, 1997

TO: Editor, Capital Press (FAX: 1-503-370-4383)

Your November 28th listing of the Washington 303(d) waterways-deemed-to-fail-state-standards-for-water-quality was comprehensive

However, those interested in the basis for the list ngs should study their own local streams listings in the inches-thick DECISION MATRIX for both the 1998 and the 1996 Section 303(d) lists. They may find, s I did, outdated testing and numerous errors, omissions and inconsistencies.

In my locality, station readings were mixed between streams, with a mercury reading from a Bear Creek stream segment transferre to a Sammamish River segment, with a resultant (erroneous) listing for t e Sammamish segment.

Similarly, dissolved oxygen readings for a Bear Cre k stream segment in 1996 were transferred to Sammamish River segments for 19 8. (The identical rationale concluded with a NO listing for applicable Bear Cre k in 1996, but a YES listing for the inapplicable Sammamish River in 1998.)

Ten temperature exceedances in one Sammamish segmen t resulted in NO listing because the exceedances were not human-caused, whil five exceedances in another Sammamish segment resulted in YES listing. The one difference between the two rationales was that a Department of Ecology official agreed with a Muckleshoot Tribe report claiming human-caused channelization a d lack of shading. However, the channeling/shading conditions are identical for both segments.

Another Sammamish River segment was listed YES for temperature because of its "inflow to the Issaquah Hatchery", even though the Sammamish River is miles away from the hatcheryand has no connection at all, with Lake Sammamish lying between.

There were fecal coliform listings for stream segme nts with no septic systems and from which the dairies are long gone. There are, h wever, lots of Canadian geese and other waterfowl in the river and the bordering preserved open space, which would account for fecal coliform counts. As a "nat ural condition" those river segments should not be listed YES for fecal colifor m.

If other areas also have streams listed based on eg regious conclusions from faulty rationale, then the voluminous list of faile d streams is very misleading. We're being sold a bill of goods that's costing us millions and resulting in massive loss of land use.

Sincerely,

Maxine Keesling

Maxine Keesling
15241 N.E. 153rd
Woodinville, WA 98072
(425) 483-8523

March 6, 2003

TO: Susan Braley, DOE
FAX: 360-407-6426

RE: DOE WATER QUALITY RULES (303(d) listings)

Since, on June 19, 2002, I attended Ecology's meeting on the above in Bellevue, and since at that time Dave Garland, Ralph Svrjcek and Matthew Green were so sincere and convincing when they said there would be a new-leaf-turnover for 303(d) listing standards and that they fully understood shortcomings in the previous listings, I turned my attention elsewhere and dismissed said listings from my mind.

Until I recently received the February 28th Legisletter from the Washington Farm Bureau. When they strongly state that the new rules are BAD, I believe them, over believing Ecology.

So please do work with farmers to assure that the new rules are fair to all, including both farmers and non-farming landowners.

(I am including copies of what I turned into the Ecology fellows at the June 19th '02 Bellevue meeting, except not the geese picture, which is too dark to copy well.)

Sincerely,
Maxine Keesling

cc: 6-7-02 letter to DOE
10-19-97 letter to DOE's Steve Butkus
11-29-97 letter to CAPITAL PRESS, which was printed in their 12-12-97 issue
(The 1997 letters are chapter-and-verse descriptions of some of the failings in the then-current listings.)

(I would like this letter and the ccs all included as of-record testimony for this current go-round. I would also like it noted that when, at the 6-19-02 meeting I read a statement by Kathy Fletcher, Executive Director of People for Puget Sound, that "Puget Sound, including the rivers and streams that feed it, is still dangerously polluted.", one of the DOE-ers said that statement was "for effect, to get contributions', and that the waters are NOT dangerous.)

Maxine Keesling
15241 NE 153rd Street
Woodinville, WA 98072
(425) 483-8523

June 7, 2002

TO: Department of Ecology Water Quality Program
PO Box 47600
Olympia WA 98504-7600

RE: 303(d) Listing Policy

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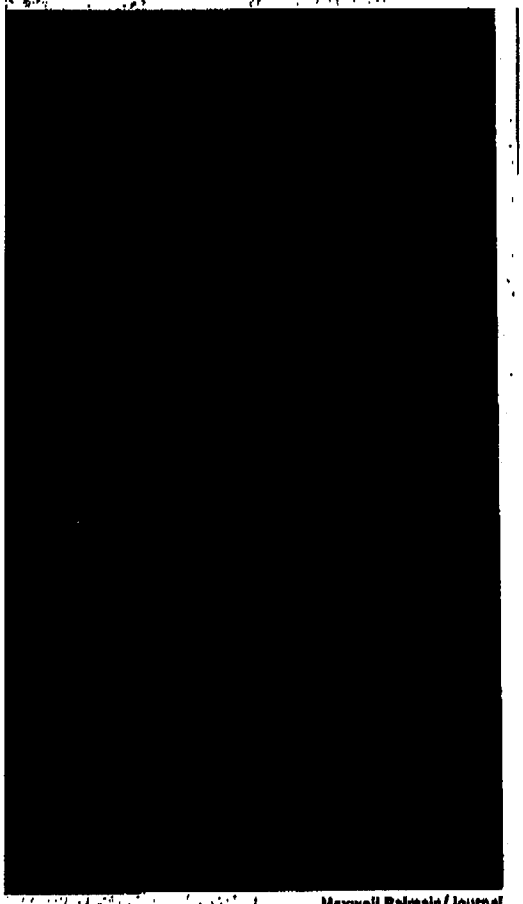
Maxine Keesling

Journal

5-8-02

EASTSIDE



Maxwell Belmain/Journal

Being goosey in the su

In a rite of spring, seven goslings get s[illegible] yesterday on th[illegible] Sammamish Slough in Redmond.

cc: EPA Region 10 (FAX: 206-553-0165
Speaker of the House Clyde Ballard
Washington State Grange
Washington State Farm Bureau

Maxine Keesling
15241 NE 153rd Street
Woodinville, WA 98072
(425) 483-8523

October 19, 1997

TO: Steve Butkus, Washington DOE
FAX: 360-407-6426

RE: Comments on Proposed 1998 Section 303(d) List (Impaired/Threatened Surface Waters Requiring Additional Pollution Controls)

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SAMMAMISH RIVER (cont'd)

MERCURY.

WA-08-1090. Mistake. Those mercury readings were listed in the 1996 List under BEAR-EVANS CREEKS. There are no mercury readings for the Sammamish River on either the 1996 or 1998 list.

FECAL COLIFORM. (various segments)

There is no Rationale given for YES, to list. Since the river's urban areas are sewered, and the FEW homes in the rural area have no septic system problems; and since the dairy cows are long gone, with pastures going to brush, what's left is an overabundance of waterfowl, noted for excretions causing fecal coliform. This is a NATURAL CONDITION which should NOT lead to a YES listing.

BEAR-EVANS CREEKS (List page 88)

WA-08-1095. FECAL COLIFORM: With the last testing being 1991, and with the subsequent massive GMA downzonings to minimum 5-acre rural lot sizes; and with the Bear Creek Basin Plan's mandated 65% vegetation retention policies; and with the vanishing of the last dairy herd - LEAVING ONLY THE NUMEROUS WATERFOWL with their fecal coliform problems - wouldn't it be correct to say the waterfowl are a NATURAL CONDITION and EXCLUDE Bear-Evans from listing?

DRAYTON HARBOR (List page 10)

WA-01-0020. FECAL COLIFORM: The two cited excursions for 11-6-85 and 5/4/87 have passed the 10-year point and are no longer valid for listing. As to the commercial shellfish area, the only commercial beds, owned by a state employee, ceased operations even though septic system problems have been cured by sewer installations. If there is a problem even without the septic systems and the commercial shellfish beds, would waterfowl and seals/sea lions be the natural cause?

Under the circumstances, all of the above deserve non-listing - or else a valid explanation of why not.

Sincerely,

Maxine Keesling

FAX: 553-0165

cc: TO EPA REGION 10 (whoever handles 1998 Section 303(d) listings)

Since I had the feeling last time that the EPA merely rubber-stamped what was sent Region 10 by the State Department of Ecology, I'm copying these comments to you so you'll have ample time to consider the contents. Listings established on the basis of the foregoing are not valid and should not be endorsed by the EPA.

M.K.

cc: Department of Ecology
EPA Region 10
House Speaker Clyde Ballard
Washington State Grange
Washington State Farm Bureau

Maxine Keesling
15241 NE 153rd Street
Woodinville, WA 98072
~~(206)~~ 483-8523
425

November 29, 1997

TO: Editor, Capital Press (FAX: 1-503-370-4383)

Your November 28th listing of the Washington 303(d) waterways-deemed-to-fail-state-standards-for-water-quality was comprehensive

However, those interested in the basis for the list ngs should study their own local streams listings in the inches-thick DECISION MATRIX for both the 1998 and the 1996 Section 303(d) lists. They may find, s I did, outdated testing and numerous errors, omissions and inconsistencies.

In my locality, station readings were mixed between streams, with a mercury reading from a Bear Creek stream segment transferre to a Sammamish River segment, with a resultant (erroneous) listing for t e Sammamish segment.

Similarly, dissolved oxygen readings for a Bear Cre k stream segment in 1996 were transferred to Sammamish River segments for 19 8. (The identical rationale concluded with a NO listing for applicable Bear Cre k in 1996, but a YES listing for the inapplicable Sammamish River in 1998.)

Ten temperature exceedances in one Sammamish segmen resulted in NO listing because the exceedances were not human-caused, whil five exceedances in another Sammamish segment resulted in YES listing. The one difference between the two rationales was that a Department of Ecology officia agreed with a Muckleshoot Tribe report claiming human-caused channelization a d lack of shading. However, the channeling/shading conditions are identical for both segments.

Another Sammamish River segment was listed YES for emperature because of its "inflow to the Issaquah Hatchery", even though the ammamish River is miles away from the hatcheryand has no connection at all, with Lake Sammamish lying between.

There were fecal coliform listings for stream segme ts with no septic systems and from which the dairies are long gone. There are, h wever, lots of Canadian geese and other waterfowl in the river and the bordering reserved open space, which would account for fecal coliform counts. As a "nat ral condition" those river segments should not be listed YES for fecal coliform.

If other areas also have streams listed based on eg egious conclusions from faulty rationale, then the voluminous list of faile streams is very misleading. We're being sold a bill of goods that's costing us illions and resulting in massive loss of land use.

Sincerel ,

Maxine Keesling

WASHINGTON STATE DEPARTMENT OF
Natural Resources

DEPT OF NATURAL RESOURCES
PAT McElroy

DOUG SUTHERLAND
Commissioner of Public Lands

cm 4/1/03
Done

March 4, 2003

Susan Braley, Unit Supervisor
Water Quality Program
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Department of Ecology
Water Quality Program

MAR 06 2003

Subject: Comments on December 19, 2002 Draft Water Quality Standards

Dear Ms. Braley:

The Department of Natural Resources has reviewed the December 19, 2002 Draft Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A WAC and appreciates the opportunity to comment.

As you are aware, the Forest Practices Board substantially amended the forest practice rules in 2001 to incorporate the recommendations of the Forests & Fish Report (FFR) and the 1999 Salmon Recovery Act (SRA). Two of the primary goals of the FFR and the SRA are to provide compliance with the Endangered Species Act (ESA) and meet the requirements of the Clean Water Act (CWA). As provided by statute, prior to adoption of the Forest and Fish Rules (Rules), the Board reached agreement with the Department of Ecology on the portion of rules pertaining to water quality so that compliance with the Rules would achieve compliance with water pollution control laws. The Rules are designed to ensure state water quality standards are met and our shared goal of clean water in Washington State is achieved.

The negotiators of FFR recognized that as time goes on new scientific information would improve and change our understanding of water quality and fish habitat issues. Developing a science based program to address these issues in a timely manner, and ensuring the Rules are effective or modified as necessary in response to research, was a critical element of the report. This program is known as the Adaptive Management Program. The legislature as well recognized the importance of this scientific based adaptive management program by mandating its inclusion in the Rules, and requiring that any changes to the Rules covering aquatic resources be consistent with recommendations resulting from the Program. DNR is committed to using the Adaptive Management Program to make necessary changes to the Rules to improve salmon habitat and water quality in response to new information.

Ecology's designee to the Forest Practices Board, Dick Wallace, addressed the Forest Practices Board at the May 17, 2001 adoption of the permanent Rules with the comment: *"Ecology is nearing the end of a multi-year process to develop new water quality standards. When these standards take effect, the adaptive management process will be used to determine whether changes to the Forest Practices Rules are necessary."* Consistent with Mr. Wallace's statement, the Rules require that any changes must be based on peer-reviewed scientific research and a field monitoring strategy developed through the Adaptive Management Program.

The Cooperative Monitoring, Evaluation and Research (CMER) committee, of which Ecology is a participant, is developing research and monitoring projects to address water quality issues. CMER will evaluate the results of these studies within the context of any new water quality standards adopted by Ecology to ensure the Rules are effective in meeting the requirements of the CWA. New information relevant to the Rules will be communicated to the Forest Practices Board for its consideration. It is DNR's understanding that Ecology fully endorses this approach to FFR implementation. Furthermore, DNR will look to Ecology to play a lead role to ensure the Adaptive Management Program and CMER adequately assess the effectiveness of the Rules' in meeting our shared water quality goals.

Thank you for the opportunity to comment. We appreciate Ecology's continued support as we progress with the implementation of FFR. If you'd like to discuss our comments further, or need additional information, please contact Carol Walters at 902-1151or Darin Cramer at 902-1088.

Sincerely,

Pat McElroy
Executive Director of Regulatory Programs

C: Lenny Young, Forest Practices Division Manager
Debora Brown Munguia, Federal Assurances Project Manager

Done em 4/2/03

ANGELA SCHAUER [redacted]

Angela Schauer
E 3990 Mason Lake Dr. W.
Grapeview, Wa. 98546

Susan Braley
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600
swqs@ecy.wa.gov
360.407.6414
360.407.6426 fax

Department of Ecology
Water Quality Program

FEB 26 2003

February 19, 2003

Dear Susan Braley,
The State Department of Ecology (DOE) has issued its latest attempt to change the Water Quality Standards. I oppose these standards I am asking you to represent my voice to DOE. They must hear how these rules will impact farmers and ranchers. I oppose these standards because:

The standards put fish before people. The standards would require farmers to improve natural streams to laboratory-defined optimal conditions. The standards are not based on best available science.

The temperature standards would be set to a level that even Mother Nature cannot meet in some circumstances.

The oxygen standard is overly restrictive and does not provide meaningful improvement to fish protection. These standards are one-size fits all, blanket approach to water and conditions that vary greatly due to elevation or geography.

DOE has not yet provided the cost benefit analysis. Farm Bureau has consistently delivered the message that farmers and ranchers cannot withstand one more regulatory hit and be able to stay competitive nationally or internationally. Some farmers and ranchers may not even be able to stay in business let alone stay competitive.

Please consider these facts. Use them for clearly presenting the problem. Stop the DOE from making problems worse.

Thank you,
Angela Schauer
Angela Schauer

Louis E. Riley Done

566 Cummins Road
Touchet, Washington 99360-9560

Am 4/1/03

Washington State Department of Ecology
Surface Water Quality Standards
Attn: Susan Braley
PO Box 47600
Olympia, WA 98504

LOUIS & JANICE RILEY
[redacted]

JAN 15 2003

The top priority to make our waters clean and safe for people, fish, and wildlife should be to stop surface run-off. Surface run-off carries chemicals, heavy silt, and debris. How much soil has run down the tributaries and the Walla Walla River since the McNary Dam went into the Columbia River in the 1950's? A lot! All that silt had to have influenced the fish over all of these years.

We believe that because of the high temperatures in the Walla Walla Valley in the summer, it is not sensible to try to keep flows high enough and cold enough to support fish all year long, unless we build reservoirs to store water when it is abundant and release when it is needed. The goal would be to keep water levels from getting too low, making it easier to maintain cooler temperature levels, and allow fish passage.

Reservoirs could also help lessen the heavy damage from flooding, if those waters could be contained, and saved to augment the flows of the streams.

We do not believe that less irrigation is the answer. Getting fish upstream earlier, stopping soil washing, building reservoirs, and continued irrigation should be tried before any reduction in irrigation takes place.

Allow irrigators to use all the water they have been using, with top priority given to those who have irrigated the longest period of time. Through irrigation, the soil is used for storing and filtering water for future use, and the undergound aquifers are replenished. The natural filtering and return flows from irrigation increase stream flows and lower water temperatures. Cool, cleaner water comes back out through springs into the streams.

We have for many, many years pushed for cleaner water in our streams, but all aspects of the use of the water must be taken into account when trying to establish criteria for stream and wildlife health. Look at all the ways to change water temperature, dissolved oxygen, bacteria, ammonia, return flows, etc. before the final decisions are made. Change the oxygen level of the water, if possible. Remove bacteria, ammonia, debris, chemicals, or better yet, establish and enforce rules for keeping them out as much as possible in the first place. Maybe genetically change the bull trout themselves so they could live in warmer water, if we are going to have to live with warmer water.

I don't believe that the lower summer stream flow is a new thing. We have been in the Walla Walla area all of our 65 years. The farthest back I remember is when I was probably 5 or 6 years old. My parents had, and we still farm, an irrigated farm with the oldest irrigation right on Dry

Creek (a tributary of the Walla Walla River in Walla Walla County). Even in those days it would dry up as the summer progressed, to less that 1 cubic foot per second. When I worked for the Touchet Irrigation Districts # 5 and 6 in the 1960's, the Touchet River would nearly dry up in the summer.

If management of the streams negatively impacts irrigation too much, we are apt to bring our country around to a dependence on imported food, the same as oil. Let's not put standards on our rivers and streams that are either impossible to meet, or would cause the growers of our nation's foods to go out of business. Many imported foods are not raised or produced under as high of standards as here in the U.S.

Sincerely,

Louis E. Riley

Janice Riley

Done on 4/2/03 –

SKAGIT COUNTY
TOM KARSH

SKAGIT COUNTY
Department of Administrative Services
700 South Second Street, Room 202
Mount Vernon, WA 98273

Tom Karsh
Natural Resource Policy Administrator

March 7, 2003

Susan Braley
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Subject: Written Comment on Proposed Revisions to WAC 173-201A Water Quality Standards for Surface Waters

Dear Ms. Braley:

The following comment is being sent to establish standing for Skagit County and to confirm some of the issues raised in our recent phone discussion. As you were advised, Skagit County is in the midst of revising a portion of its Critical Areas Ordinance to come into compliance with the Growth Management Act. The County is hoping to find the regulatory balance between the Act's requirements to protect both ongoing agriculture and fish and wildlife habitat within the County's designated natural resource lands. On February 12, 2003 the County released a draft environmental impact statement and draft regulations and are taking comments on these documents until March 31, 2003. Our proposal relies heavily on the current surface water quality standards found in WAC 173-201A. As such, any changes to these standards are of interest, not only on their own merits, but also as to how those changes might affect the future acceptance and success of our proposed critical areas program.

We are aware of the comments you have received from the State Farm Bureau and would incorporate by reference many of their concerns. In particular, the County would want an opportunity to review and comment on a cost-benefit analysis to the farming business sector before any rule change. In addition the County would want to make sure that any new standards provide enough flexibility to consider background and specific watershed water quality conditions before confirming violations and proceeding with enforcement actions.

Thanks for the opportunity to comment. Let me know if you have any questions on these concerns.

Sincerely,

Tom Karsh

Phone (360) 419-3373 Fax (360) 336-9307 E-mail tomk@co.skagit.wa.us

Please clarify "waters of State" do not mix groundwater & surface water & AS Standards should be different when applying treated wastewater water to the land Vrs. treated water to a lake or stream

DONE ATK

FAIRCHILD MOBILE HOME PARK

[redacted]

Thank

Mark Leonhorts
FAIRchild mobile Home Park
P.O. Box 381
Reardan wa 99029
796-3146

Received 1/29/2003
Pasco Public Hearing
Bev Paston - Hearings Officer